Important Information

Refer to the identification/rating label located on the back panel of your product for its proper operating voltage.

This device complies with part 15 of the FCC rules. Operation is subject to the condition that this device does not cause harmful interference. FCC Regulations state that unauthorized changes or modifications to this equipment may void the user's authority to operate it. Use of this device without the supplied power cord may cause this set to be non-compliant with FCC part 15 regulations.

Cable TV Installer: This reminder is provided to call your attention to Article 820-40 of the National Electrical Code (Section 54 of the Canadian Electrical Code, Part 1) which provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building as close to the point of cable entry as practical.

Product Registration

Please fill out the product registration card and return it immediately. Returning the card allows us to contact you if needed.

Keep your sales receipt to obtain warranty parts and service and for proof of purchase. Attach it here and record the serial and model numbers in case you need them. The numbers are located on the back of the product.

Model No. _____

Serial No. _____

Purchase Date: _____

Dealer/Address/Phone: _____

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Chapter 1: Introduction

Overview:

- **Welcome to LCOS (Liquid Crystal On Silicon): A Higher Definition Television Is Here.™**

- **A brand new HD technology**

- **What makes the HD viewing experience so special?**

Graphics are for representational purposes.

Welcome to L̲iquid C̲rystal O̲n S̲ilicon (LCOS)

A Higher Definition Television Is Here.™

At the end of the 20th century, the Thomson multimedia team was given a challenge: create the ultimate, high definition television viewing experience.

A dedicated team was formed. Thinking outside of the box, this group researched various technologies. In the end, the team took a calculated risk by choosing a brand new technology called Liquid Crystal On Silicon. In addition to a superlative picture, the technology used inside of the TV uses smaller and lighter weight parts than normal TVs. The television designers saw an advantage and went to work — creating a lightweight, sleek design.

The result: your RCA LCOS High Definition Television.
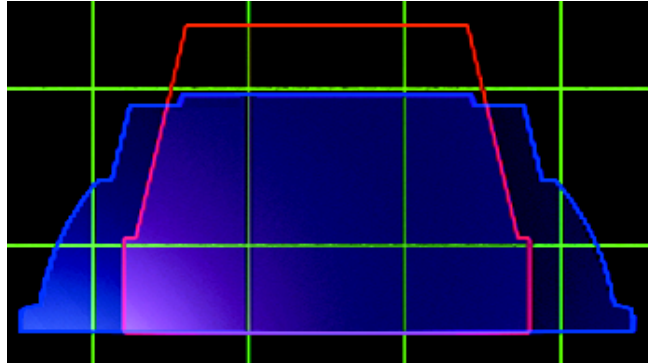
Your LCOS HDTV is 18 inches thin — taking up less space than standard televisions. The absence of a picture tube (also called a Cathode Ray Tube) allows for a slimmer, lightweight design.

A brand new HD technology

There's been much discussion about HDTV (high definition television) and how it works. LCOS is HDTV at its finest — providing crisp, bright images in a package that is thinner and lighter than other TVs.

This superlative picture quality and sleek design is made possible by the technology called LCOS (Liquid Crystal On Silicon). Unlike other TVs, your LCOS TV doesn't have a picture tube (technically, called a Cathode Ray Tube, or CRT for short). It's the absence of this tube that has enabled us to design a TV that is:

- half the weight of a conventional projection or large screen TV– your LCOS television is less than 100 lbs.

- only 18 inches thin — slimming the size 25% compared to projection and very large screen TVs.

TV screen

Integration optics

RGB imagers

White light source

Prism
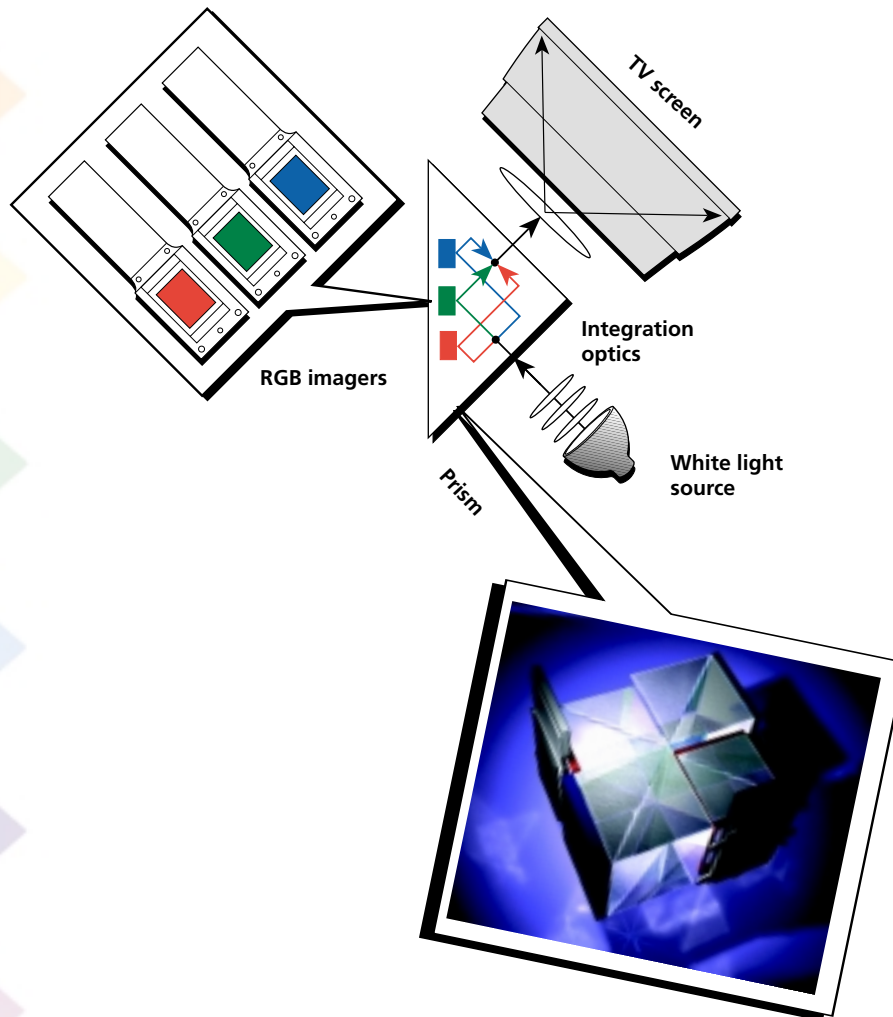
Light Management Yields Brighter, Crisper Pictures

Simply put, the secret of LCOS is "light management."

Your LCOS high definition television uses state-of-the-art technology to form a revolutionary, optical system known as a Light Engine. This Light Engine manages and manipulates light like never before, to provide premier HDTV viewing.

The Light Engine begins with an intense, white light source. This intense light is transformed by a series of integration optics and lenses into a rectangular, laser-like beam. The beam then enters a sophisticated prism, where the light is divided into three fundamental colors (red, green, and blue). Each color is then directed towards its own specific, reflective light valve (also called an imager), which contains the modulated HDTV signal. The light reflects off the imager, with the signal attached, and recombines before exiting the prism — forming a perfectly aligned, miniature HDTV picture. This miniature HDTV picture is magnified 70 times through a projection lens system, providing the full size HDTV picture to the screen.

What Makes the HD Viewing Experience So Special?

To videophiles, the technology is what makes HDTV so special. But to a regular viewer, there are basically three things that make HDTV (especially, your LCOS HDTV) the ultimate viewing experience:
- resolution
- aspect ratio
- digital picture and sound

Resolution:
The crisp, life-like picture people rave about when experiencing true HDTV is due to the resolution this technology provides.

A regular television (called standard definition) displays about 200,000 pixels. A pixel (which stands for picture element) is a small dot. The picture you see on your TV is composed of these dots. HDTV displays 1 million to 2 million pixels (up to 10 times the resolution of the picture on a regular TV).

Aspect Ratio
Aspect ratio is nothing more than the width and height of the picture. Regular TVs use a 4 x 3 (also written 4:3) aspect ratio, which means the picture is a little wider than it is tall (a screen that is 20 inches wide is about 15 inches tall).

A 4:3 aspect ratio shows less of the image than the widescreen, 16:9 apsect ratio that is part of the HDTV standards.

When the standards were being developed for television broadcasting in 1941 by the NTSC (the National Television Standards Committee), it made sense to adopt the 4 x 3 aspect ratio that the film industry was using at that time.

As TVs dropped in price and people prospered in the 1950s, the movie industry had to find a way to get people out of their living rooms and back to the movie theatres. That's when they created the 16 x 9 (also written 16:9) aspect ratio (also called widescreen format). When the standards for HDTV were being developed by the ATSC (Advanced Television Standards Committee) the 16 x 9 aspect ratio was chosen as the format for HDTV.

This widescreen format makes sense because it's much closer to the way we see. Our field of vision is actually much wider than tall because of our peripheral vision.

Digital Signal and Sound

Digital signals can be compressed, enabling a much more robust signal with no variation in quality. Digital signals, in contrast to analog signals that are used with regular TVs, can be reproduced precisely.

Another requirement of HDTV is the ability to reproduce 5.1 Dolby Digital sound. Connect a home theatre system to your LCOS and you'll never "go out" to a movie or sporting event again — watching at home will be better than the real thing!

Chapter 2: Connections & Setup

Overview:

Graphics are for representational purposes.

RCA SCENIUM

LCOS ILLUMINATED

Things to Consider Before You Connect

Protect Against Power Surges

- Connect all components before you plug any of their power cords into the wall outlet or power strip. NEVER plug your TV into an outlet that is controlled by a wall switch.

- Turn off the TV and/or component(s) before you connect or disconnect any cables.

- Make sure all antennas and cables are properly grounded. Refer to the Important Safeguards sheet packed with your TV.

Protect Components from Overheating

- Don't block ventilation holes on any of the components. Arrange the components so that air can circulate freely.

- Don't stack components.

- When you place components in a stand, make sure you allow adequate ventilation.

- If you connect an audio receiver or amplifier, place it on the top shelf so the heated air from it won't flow around other components.

Position Cables Properly to Avoid Audio Interference

- Insert each cable firmly into the designated jack.

Important Stand and Base Safety Information

Choose the location for your TV carefully. Place the TV on a stand or base that is of adequate size and strength to prevent the TV from being accidentally tipped over, pushed off, or pulled off. This could cause personal injury and/or damage the TV. Refer to the Important Safeguards sheet packed with your TV. It is recommended that you purchase the stand designed for this TV (model RRS50).

Use Indirect Light

Don't place the TV where sunlight or room lighting will be directed toward the screen. Use soft or indirect lighting.

Connection Pictures
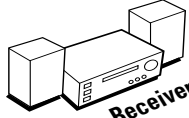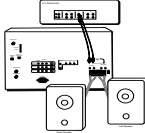
The components used in the connection pictures are for representation only. The input jacks and the output jacks on the back of your components (VCR, DVD Player, etc.,) might look different than those illustrated.

Step 1 Choose Your Connection

There are several ways to connect your LCOS television, depending on the components you want to connect and the quality of the signal you want to achieve. Please use the following chart to determine which connection is best for you. Proceed to the appropriate page and connect your TV. For more information about the relationship between the cables, jacks, and the quality of the signal you see on your TV, go to page 24.

Component	Signal Quality	Jacks on the TV	Cables needed*	Go to...
DVD	Excellent	COMPONENT INPUT Y Pb Pr, AUDIO L and R	component video, audio left and right	page 14
	Very Good	S-VIDEO, AUDIO L and R	s-video, audio left and right	page 16
	Good	VIDEO, AUDIO L and R	audio/video	page 18
VCR	Excellent	S-VIDEO, AUDIO L and R	s-video, audio left and right	page 14
	Very Good	VIDEO, AUDIO L and R	audio/video	page 16
	Good	ANTENNA A or ANTENNA B	coaxial	page 18
Receiver	Excellent	DIGITAL AUDIO OUT	optical (SPDIF)	page 20
	Very Good	AUDIO OUTPUTS (FIXED or VARIABLE L and R)	audio/video S-VIDEO, AUDIO L and R	page 20
External speakers	Standard	EXT SPEAKERS	speaker wire	page 22

* pictures of cables are on pages 24 – 26
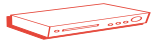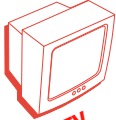
DVD

TV

VCR

Quality: Excellent

DVD

VIDEO   AUDIO OUT   COMPONENT   S-VIDEO
L   R   VIDEO OUTPUT
Y   P_B   P_R

SATELLITE
DISH ANTENNA

1B   1A

TV

SATELLITE
IN

ACCESS
CARD

PHONE   DIGITAL
JACK   AUDIO OUT

CABLE OR
ANY ALTERNATE
RF SIGNAL, SUCH AS
A DIGITAL OR ANALOG
TERRESTRIAL ANTENNA

ANTENNA B
IN

4

ANTENNA A
IN

AUDIO
VIDEO   L   R   S-VIDEO   COMPONENT
AUDIO

INPUT1

INPUT2

INPUT3

AUDIO OUTPUTS
FIXED   VARIABLE
L   R   L   R

EXT SPEAKERS   EXT
INT
R   L

CABLE OR
OFF-AIR ANTENNA

3A   3B   3C

Tip: Instructions to Connect

Specific Input Jacks (INPUT1, INPUT2, etc.) are referenced in these instructions to match the picture.

However, you can use any variation as long as you connect input jacks on the TV to output jacks on the other components, and make sure the video and audio cables are connected to the same Input Jack grouping.

VCR

VIDEO OUT   AUDIO OUT   S-VIDEO   IN FROM ANT   CH3
L   R   CH4

VIDEO IN   AUDIO IN   OUT TO TV
L   R

2

Step 2

Quality: Excellent

How to Connect: TV + VCR + DVD

1. **Connect your DVD Player to your TV**

   A. Connect three video-grade cables. Connect one end of each cable to the COMPONENT INPUT jacks labeled Y P_B and P_R on the back of your TV. Connect the other ends of each of the three cables to the respective Component Output jacks on your DVD Player.

   Note: If your DVD Player has Component Output jacks that aren't labeled Y P_B and P_R the color of the picture displayed on your TV might not look right because other types of Component Video (sometimes labeled Y, Cr, Cb, or YUV) separate the colors differently— use the S-Video connection shown on the next page instead of the Component Video connection described on this page.

   B. Connect the audio cables (white and red) to the COMPONENT INPUT AUDIO jacks on the back of the TV (AUDIO R and L) and to the Audio Output Jacks on the DVD Player (sometimes labeled OUT R and L).

2. **Make sure cable or antenna is connected to your VCR.**

   Connect the coaxial cable from your cable outlet, cable box, or antenna to the Input Jack on your VCR (sometimes labeled IN FROM ANTENNA or IN FROM ANT).

3. **Connect your VCR to your TV**

   A. Connect one end of a coaxial cable to the ANTENNA A IN jack on your TV. Connect the other end to the Output Jack on your VCR (sometimes labeled OUT TO TV).

   B. Connect the audio cables. Connect audio cables (white and red) to the INPUT3 AUDIO jacks on the back of the TV (L and R), and to the Audio Output Jacks on the VCR (sometimes labeled OUT L and R).

   C. Connect the S-video cable to the INPUT3 S-VIDEO jack on the back of your TV, and to the S-VIDEO jack on the VCR.

4. **If you have a satellite dish, connect the dish antenna cable to the back of the TV.**

   Connect the coaxial cable from the dish antenna (or multi-switch) to the SATELLITE IN jack on your TV

   Note: Your LCOS TV is a fully integrated HDTV that is capable of receiving DIRECTV® programming, but you must connect a DIRECTV Multi-Satellite Dish and order programming from DIRECTV.

Go to page 23
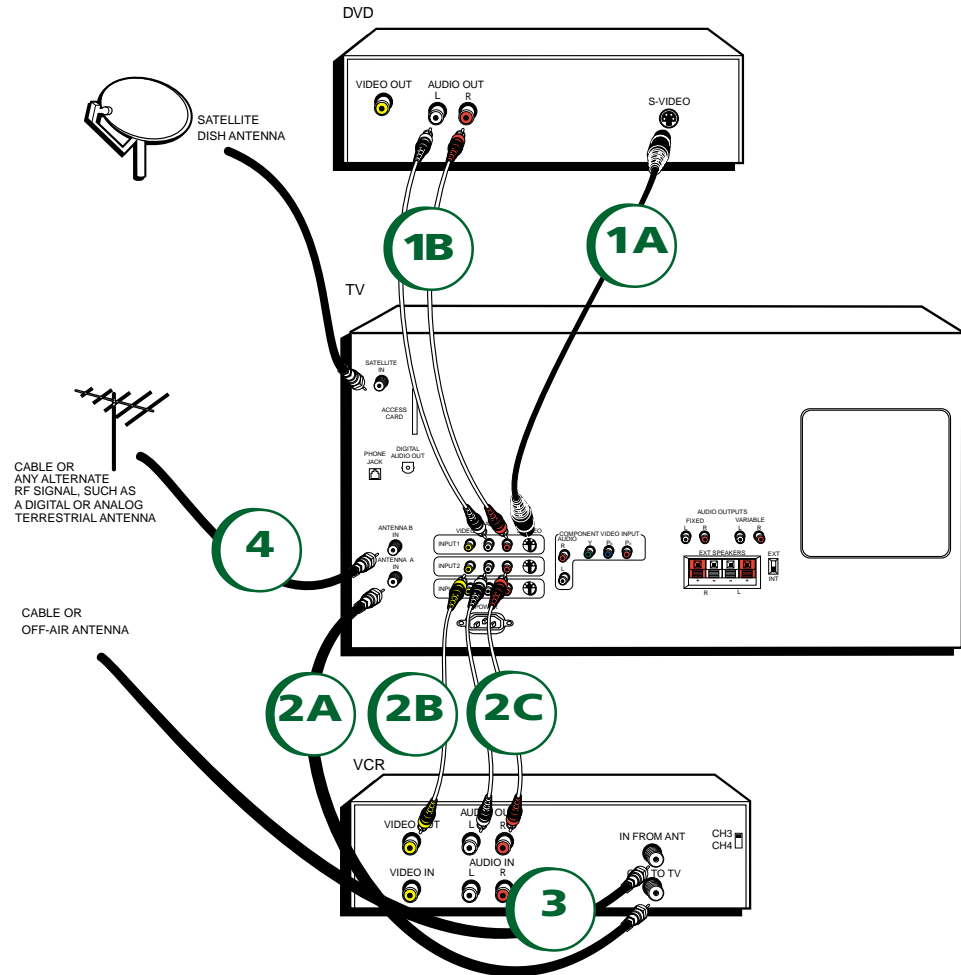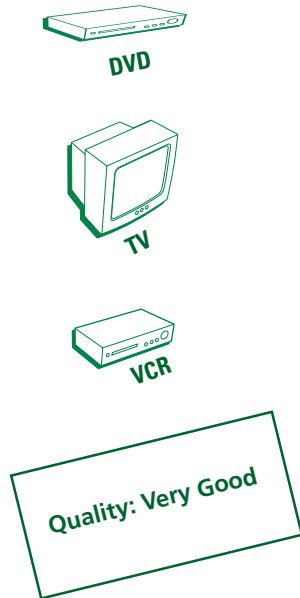
DVD

TV

VCR

Quality: Very Good

Tip: Instructions to Connect

Specific Input Jacks (INPUT1, INPUT2, etc.) are referenced in these instructions to match the picture.

However, you can use any variation as long as you connect input jacks on the TV to output jacks on the other components, and make sure the video and audio cables are connected to the same Input Jack grouping.

DVD

VIDEO OUT   AUDIO OUT
                L   R   S-VIDEO

SATELLITE
DISH ANTENNA

1B   1A

TV

SATELLITE
IN

ACCESS
CARD

PHONE   DIGITAL
JACK   AUDIO OUT

CABLE OR
ANY ALTERNATE
RF SIGNAL, SUCH AS
A DIGITAL OR ANALOG
TERRESTRIAL ANTENNA

ANTENNA B
IN

ANTENNA A
IN

4

VIDEO   COMPONENT VIDEO INPUT
INPUT 1   AUDIO
INPUT 2
INPUT 3

AUDIO OUTPUTS
FIXED   VARIABLE
  R   R

EXT SPEAKERS   EXT
                   INT
  R   L

CABLE OR
OFF-AIR ANTENNA

2A   2B   2C

VCR

VIDEO OUT   AUDIO OUT
                L   R   IN FROM ANT   CH3
                                                    CH4

VIDEO IN   AUDIO IN
                L   R   TO TV

3

Step 2

Quality: Very Good

How to Connect: TV + VCR + DVD

1. **Connect your DVD Player to your TV**

    A. Connect one end of the S-Video cable to the INPUT1 S-VIDEO jack on the TV. Connect the other end to the S-VIDEO jack on your DVD Player.

    B. Connect the audio cables (white and red) to the INPUT1 AUDIO jacks on the back of the TV (L and R) and to the Audio Output Jacks on the DVD Player (sometimes labeled OUT R and L).

2. **Connect your VCR to your TV**

    A. Connect one end of a coaxial cable to the ANTENNA A IN jack on your TV. Connect the other end to the Output Jack on your VCR (sometimes labeled OUT TO TV).

    B. Connect the audio cables (white and red) to the INPUT2 AUDIO jacks on the back of your TV (L and R) and to the Audio Output Jacks on your VCR (sometimes labeled OUT L and R).

    C. Connect the video cable (yellow) to the INPUT2 VIDEO jack on the back of your TV and to the Video Output Jack on your VCR (sometimes labeled VIDEO).

3. **Make sure cable or antenna is connected to your VCR.**

    Connect the coaxial cable from your cable outlet, cable box, or antenna to the Input Jack on your VCR (sometimes labeled IN FROM ANTENNA or IN FROM ANT).

4. **If you have a satellite dish, connect the dish antenna cable to the back of the TV.**

    Connect the coaxial cable from the dish antenna (or multi-switch) to the SATELLITE IN jack on your TV

    Note: Your LCOS TV is a fully integrated HDTV that is capable of receiving DIRECTV® programming, but you must connect a DIRECTV Multi-Satellite Dish and order programming from DIRECTV.

DVD

DVD

TV

VCR

Quality: Good

VIDEO   AUDIO OUT
L   R

SATELLITE
DISH ANTENNA

1A

TV

1B

SATELLITE
IN

ACCESS
CARD

DIGITAL
AUDIO OUT

PHONE
JACK

CABLE OR
ANY ALTERNATE
RF SIGNAL, SUCH AS
A DIGITAL OR ANALOG
TERRESTRIAL ANTENNA

ANTENNA B
IN

ANTENNA A
IN

4

AUDIO   S-VIDEO

COMPONENT VIDEO INPUT
AUDIO
R

AUDIO OUTPUTS
FIXED   VARIABLE

INPUT1

INPUT2
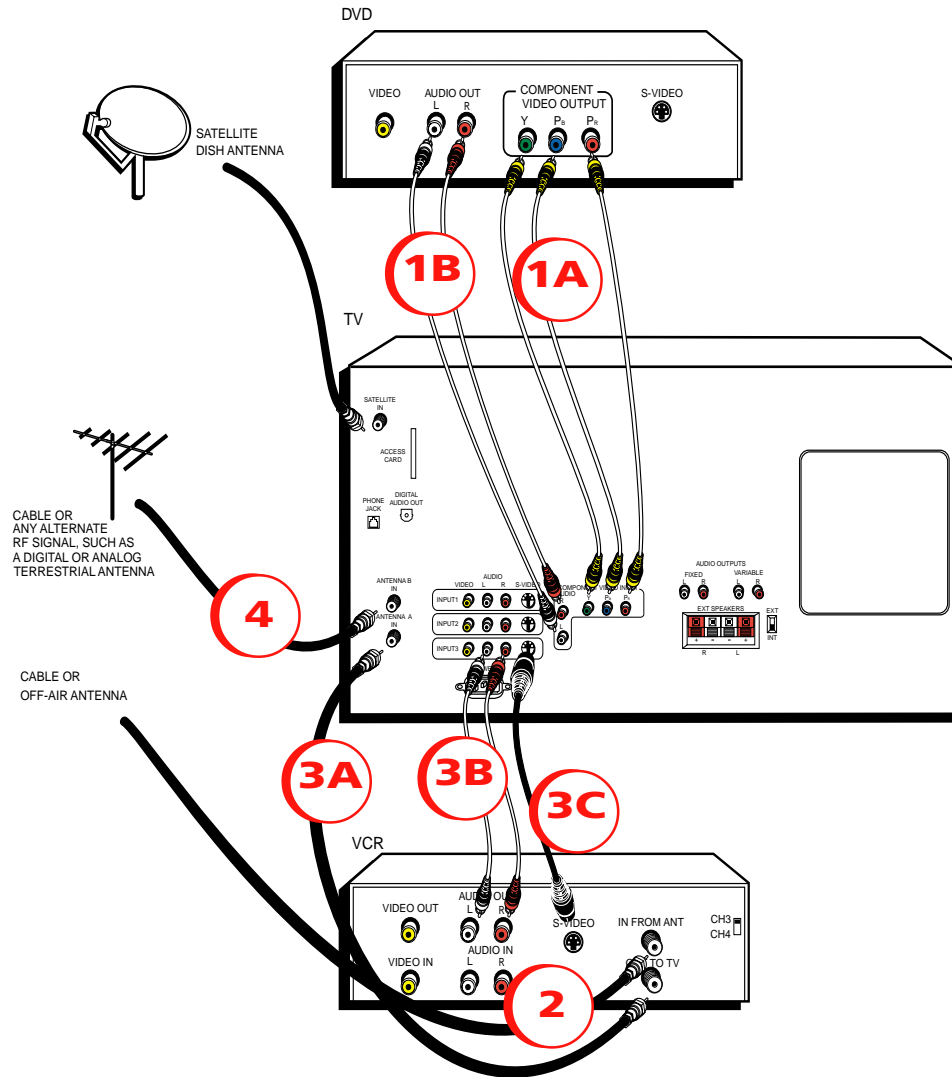
INPUT3

EXT SPEAKERS   EXT

INT

R   L

POWER

CABLE OR
OFF-AIR ANTENNA

Tip: Instructions to Connect

Specific Input Jacks (INPUT1, INPUT2, etc.) are referenced in these instructions to match the picture.

However, you can use any variation as long as you connect input jacks on the TV to output jacks on the other components, and make sure the video and audio cables are connected to the same Input Jack grouping.

2

VCR

IN FROM ANT

CH3
CH4

OUT TO TV

3

Step 2

Quality: Good

How to Connect: TV + VCR + DVD

1. **Connect your DVD Player to your TV**

   A. Connect the audio cables (white and red) to the INPUT1 AUDIO jacks on the back of the TV (L and R), and to the Audio Output Jacks on the DVD Player (sometimes labeled OUT L and R).

   B. Connect the video cable (yellow) to the INPUT1 VIDEO jack on the back of your TV, and to the Video Input Jack on your DVD Player (sometimes labeled VIDEO OUT).

2. **Connect your VCR to your TV**

   Connect one end of a coaxial cable to the ANTENNA A IN jack on your TV. Connect the other end to the Output Jack on your VCR (sometimes labeled OUT TO TV).

3. **Make sure cable or antenna is connected to your VCR.**

   Connect the coaxial cable from your cable outlet, cable box, or antenna to the Input Jack on your VCR (sometimes labeled IN FROM ANTENNA or IN FROM ANT).

4. **If you have a satellite dish, connect the dish antenna cable to the back of the TV.**

   Connect the coaxial cable from the dish antenna (or multi-switch) to the SATELLITE IN jack on your TV.

   Note: Your LCOS TV is a fully integrated HDTV that is capable of receiving DIRECTV® programming, but you must connect a DIRECTV Multi-Satellite Dish and order programming from DIRECTV.
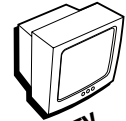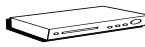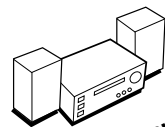
Connecting a Dolby Digital Receiver: Excellent

If you own a Dolby Digital receiver that uses an optical cable-type input, connect an optical cable for excellent audio quality.

A. Connect one end of the optical cable to the DIGITAL AUDIO OUT jack on your TV, and to the Optical Input Jack on your receiver/amplifier.

Note: Remove the plastic cover inside of the TV's DIGITAL AUDIO OUT jack before you insert the cable.

B. Connect audio cables to the AUDIO OUTPUTS (FIXED L and R) jacks on your TV and to the Audio Left and Right Input Jacks on the receiver/amplifier.

Note: Go to the *Optical Output* menu that's in the *Audio* menu to choose your setting. Go to page 112 for details.

Step 2•a
Very Good

Connecting a receiver/amplifier

1. Use RCA cables to connect either the FIXED or VARIABLE AUDIO OUTPUT jacks from the TV to an A/V (audio/video) receiver.

   • FIXED provides fixed-level audio output from the TV. This audio output is ideal for connecting to an A/V receiver that has its own volume control.

   • VARIABLE provides variable-level audio output. Volume levels are controlled by the volume controls on the TV and TV's remote control.

2. Use speaker wire to connect the TV to external speakers (go to page 22 for details).

   • The EXT/INT switch beside the jacks lets you switch between using the TV's internal speakers and external speakers that you've connected. INT sends audio only to the TV's internal speakers.

3. You may prefer to turn off the TV's internal speakers. Select *Audio* from the main menu and then select *Speakers*. For details about the *Audio* menu, go to page 109 in Chapter 6.

Important: Do not use the amplifier's PHONO inputs. Consult the amplifier's owner's manual for the manufacturer's recommended hookup.
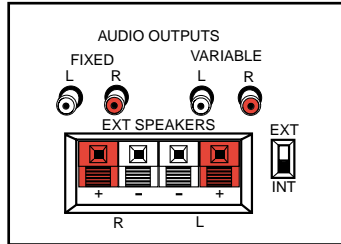
External Speaker Output Jacks

Speaker wire

Connecting Speakers to the TV

You can connect up to two additional speakers to the TV: one to the R (right) terminal, and one to the L (left) terminal.

1. If necessary, remove the vinyl covering from the ends of the speaker wire and twist the wire core.

2. Open the lever on the speaker terminal.

3. Insert the wire core into the hole. Be sure to connect the (+) to (+) and (-) to (-).

    Notes:

    • When connecting the speaker wire, make sure you connect the positive (+) terminal on the TV to the positive (+) terminal on the speaker. One side of the speaker wire is usually marked with a white stripe to help you match the terminals correctly. If the (+) and (-) terminals are not matched properly, the speakers will not be "in phase," causing reduction in bass frequencies.

    • Do not allow the wire core to touch other wires or terminals. Damage to components could result if the cores of two wires touch.

4. Close the lever. Pull gently on the wire to see that it's connected securely.

To turn on or turn off the TV's internal speakers, press MENU on the remote control and choose *Audio*. Then choose *Speakers* from the menu. For details about the *Audio* menu, go to page 109 in Chapter 6.

Go to next page

This picture illustrates how you can arrange your speakers to achieve maximum sound quality.
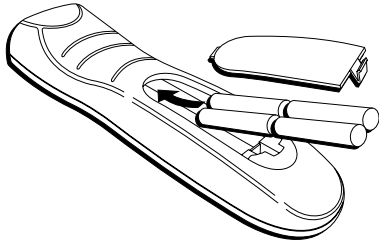
Put Batteries in the Remote Control

Step 3

Follow these steps whenever you need to install or change the batteries in your TV's remote control.

1. Remove the cover from the battery compartment.

2. Insert batteries into the battery compartment, matching the + and – end of each battery (look for the diagram inside of the battery compartment).

3. Replace the cover.
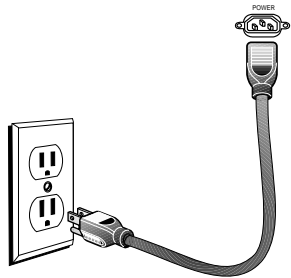
Plug in and turn on

Step 4

Plug one end of the power cord into the back of the television. Plug the other end into a wall outlet. Be sure to insert the plugs completely.

> Note: Plug your television directly into a wall outlet or power strip (or surge protector) — don't plug the TV into a wall outlet that is controlled by a light switch.

To turn on the TV, press the ON•OFF button. Your LCOS television has to check many functions the first time you turn it on (somewhat like a computer booting up). You'll notice that it takes a minute or so for the TV to completely warm up. Be patient — it's worth the wait!

Complete the Interactive Setup
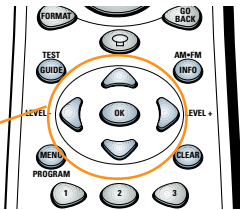
Step 5

Arrow buttons and the OK button

The Interactive setup appears when you turn on your TV for the first time. Press the arrow buttons (up, down, left, and right) on your remote control to highlight a menu item. Press OK to select the highlighted item.

Follow the steps to configure the basics of your system, such as setting up the time and day, searching for available channels, and setting up speakers. If you ever need to run the Interactive Setup again or make adjustments, go to the *Assistance* menu that's found in the main menu (for more details, go to page 137 in Chapter 7).

What's Next?

If you're finished connecting your components, you can review the following sections of this chapter that provide a general explanation of the jacks, cables and buttons on your LCOS TV — or proceed to page 33 and read the last page of this chapter.

Order Programming (optional)

To receive DIRECTV® programming,* your DIRECTV Multi-Satellite dish antenna must be installed and pointed correctly. You must also contact your service provider, DIRECTV. To contact DIRECTV, call 1-800-347-3288

You must connect a telephone line cord to the TV's PHONE JACK if you sign-up for DIRECTV® programming.

Activation of programming may be subject to credit approval and requires valid service address, social security number and/or major credit card. Programming subject to change. You must be physically located in the U.S. to receive DIRECTV service. DIRECTV services not available outside the U.S. DIRECTV programming is sold separately and independently of DIRECTV System hardware. Activate your DIRECTV programming today at 1-800-DIRECTV (1-800-347-3288).

* Receipt of DIRECTV programming is subject to the terms of the DIRECTV Customer Agreement, a copy is provided at DIRECTV.com and with your first bill. DIRECTV and the Cyclone Design logo are trademarks of DIRECTV, Inc., a unit of Hughes Electronics Corp., and are used with permission.

Explanation of Input Jacks and Cables

This section describes the jacks and cables you can use to make connections (the cables aren't provided with your television). There are several ways to connect components to your TV.

Different jacks and cables provide a different level of performance (this book categorizes these levels as Excellent, Very Good, and Good). It's important to remember, we're talking about degrees of picture improvement for comparison. If your component has S-VIDEO, composite video (VIDEO, AUDIO Left and Right), and an ANTENNA jack (where you connect a coaxial cable); S-Video would be considered excellent, composite video would be very good, and the ANTENNA jack would be considered good.
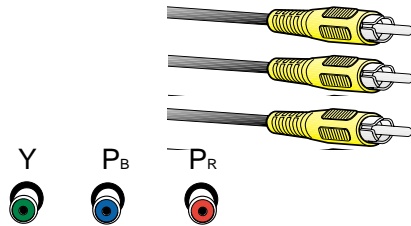
Y P_B P_R

Component Video (Y P_B P_R) Jacks and Cables— Excellent Video Quality

The Y P_B P_R jacks allow you to connect an optional component video source, such as a DVD player. This connection provides optimum picture quality because the video is separated into three signals. To ensure maximum picture quality, use three video-grade cables for the connection.

> Note: Also, remember to connect the left and right audio cables because the Y P_B P_R jacks and cables carry only the picture signal, not the sound.

S-Video Jack and Cable — Very Good Video Quality

The S-Video (separate video) jack provides better picture quality than the regular video jacks (labeled INPUT1 VIDEO; INPUT2 VIDEO; INPUT3 VIDEO) because the color (chrominance, also called chroma) part of the signal is separated from the black and white (luminance) part of the picture.

S-Video Jack

If a component you're connecting to your TV (like a VCR) has an S-VIDEO jack, connect the VCR to the TV with an S-Video cable (not provided) for a better quality picture.

> Note: Remember to connect the left and right audio cables because the S-Video cable carries only the picture signal, not the sound.
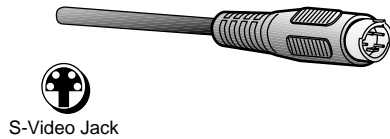
Digital Audio Out Jack and Optical Cable — Excellent Audio Quality

The optical cable is used to connect a Dolby Digital receiver to your TV. If you own a Dolby Digital receiver that uses an optical cable-type input, you can use an optical cable to connect the TV to that receiver for the best sound quality.

Digital Audio
Out Jack

Notes:

- This TV's optical digital output jack fully complies with the international standard governing this type of jack (IEC958), and is designed for connection to a Dolby Digital (AC-3® or PCM) receiver or Dolby Digital (AC-3 or PCM) decoder. Older equipment, some of which is not fully compliant with IEC958, may not be compatible with the Dolby Digital bitstream. Such a connection using anything other than Dolby Digital AC-3 or PCM receiver or decoder could create a high noise level, causing damage to headphones or speakers.

- Some receivers can only receive the signal from the optical cable when the TV is in DIRECTV mode, not TV mode. As a precaution, connect the audio cables to your TV and receiver so you won't experience audio loss when switching modes.
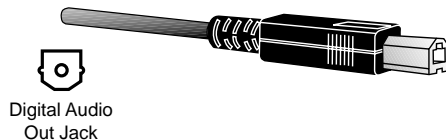
Chapter 2 ▶ Connections & Setup
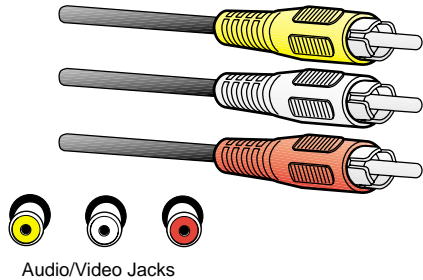
Audio/Video Jacks and Cables (RCA-type) — Very Good Video and Audio

These jacks are used for most audio/video connections between components. The audio/video jacks are often color coded (yellow for video, red for right audio, and white for left audio). This is also called composite video.

> **Note:** If your component has only one input for audio (mono), connect it to the left (white L/Mono) audio jack on the TV and don't connect the right audio part of the cable.

Audio/Video Jacks
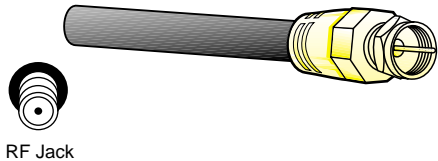
RF Jacks and Coaxial Cables (F-type) — Good Video and Audio

The RF jacks are necessary for reception of off-air broadcasts, cable, and DIRECTV signals.

These jacks are required for antenna or cable connections. The RF and coaxial jacks on the TV are labeled SATELLITE IN, ANTENNA A IN, and ANTENNA B IN. An RG-6 coaxial cable is required for all satellite signal distribution.

RF Jack
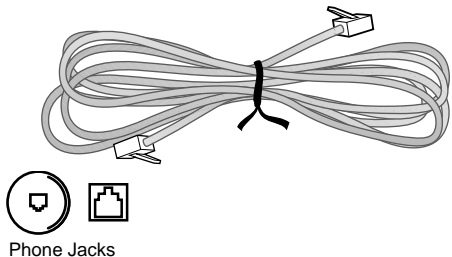
Telephone Jack and Cord (optional)

If you choose to subscribe to DIRECTV® programming, a phone line connection is used to periodically call out to DIRECTV on a toll free number. Connect a telephone line cord to the PHONE jack on the back of your TV and to an RJ11 type modular jack (the most common type of phone jack and might look like the one pictured here). If you don't have a modular jack, call your local telephone company to find out how to get one installed.

Phone Jacks

ANTENNA B
IN

ANTENNA A
IN

SATELLITE
IN

ACCESS
CARD

PHONE
JACK

DIGITAL
AUDIO OUT
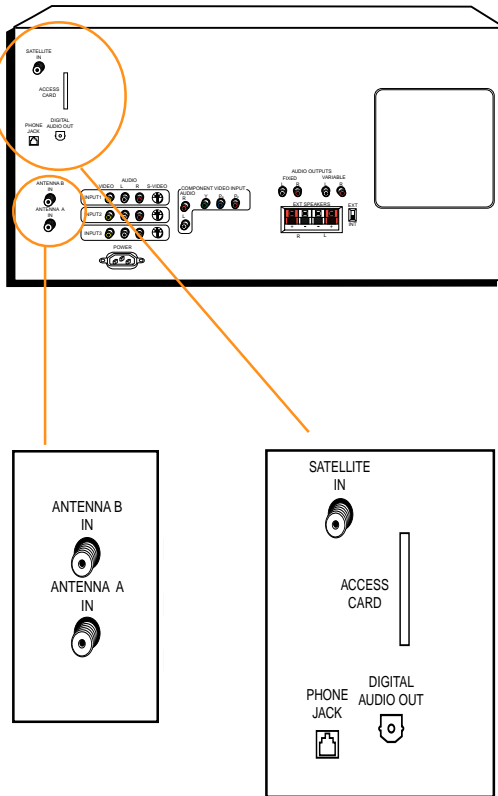
Tip: ANTENNA jacks

You can also use the ANTENNA B IN (or ANTENNA A IN) for video games and switch between the two inputs using the ANT button on the remote control.

Back of the LCOS TV

This section describes each of the Input Jacks on the back of TV. When connecting A/V cables, be sure to connect corresponding outputs and inputs (video to video, right audio to right audio, etc.).

ANTENNA B IN   Use to connect an off-air or terrestrial antenna or cable TV signal to the TV.

ANTENNA A IN   Use to connect a second off-air or terrestrial antenna or cable TV signal to the TV.

SATELLITE IN   Use to connect the DIRECTV Multi-Satellite Dish antenna to the TV using an RG6 cable.

ACCESS CARD   Your TV has an access card inserted into this slot. If you ever need to replace the card, make sure the contacts on the access card are facing left and the top of the card is facing right while inserting (for details, go to page 142 in Chapter 7.) The DIRECTV System requires a valid card.

PHONE JACK   Use to connect a phone line to the TV. The DIRECTV System requires a continuous phone line connection to periodically call out to program providers.

DIGITAL AUDIO OUT   Use a digital optical cable (or SPDIF cable) to connect your TV to a compatible Dolby Digital receiver or decoder. Dolby Digital offers theatre-quality sound (six audio channels).

Notes:

- Some receivers can only receive the signal from the optical cable when the TV is in DIRECTV mode, not TV mode. As a precaution, connect the audio cables to your TV and receiver so you won't experience audio loss when switching modes.

- This TV's optical digital output jack fully complies with the international standard governing this type of jack (IEC958), and is designed for connection to a Dolby Digital (AC-3® or PCM) receiver or Dolby Digital (AC-3 or PCM) decoder. Older equipment, some of which is not fully compliant with IEC958, may not be compatible with the Dolby Digital bitstream. Such a connection using anything other than Dolby Digital AC-3 or PCM receiver or decoder could create a high noise level, causing damage to headphones or speakers.
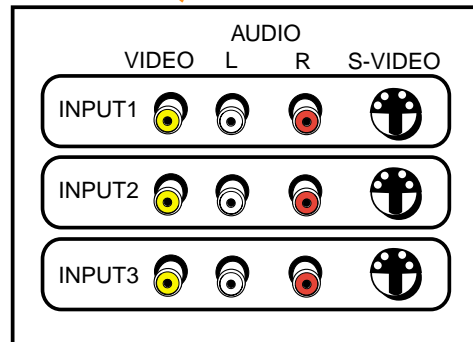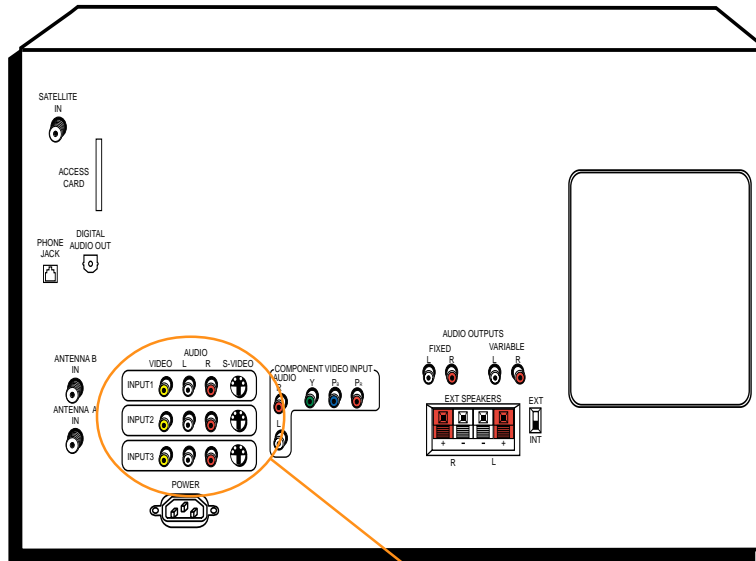
INPUT1   Lets you connect a baseband NTSC (analog) component such as a VCR, internet access device, DVD player, or laserdisc player.

- VIDEO provides composite video connection. The video connector is usually yellow.

- L AUDIO provides left audio connection. The left audio connector is usually white.

- R AUDIO provides right audio connection. The right audio connector is usually red.

- S-VIDEO lets you connect an S-Video cable for better video quality picture to a component with S-Video capability, such as a VCR or DVD player. When using S-Video, make sure to connect the two audio cables in addition to the S-Video connector because S-Video carries only the video signal.

INPUT2   Provides connection to a second NTSC (analog) video component such as a VCR or DVD player. Its jacks are the same as described for INPUT1 above.

INPUT3   Provides connection to a third NTSC (analog) video component, such as a VCR or DVD player. Its jacks are the same as described for INPUT1 above.
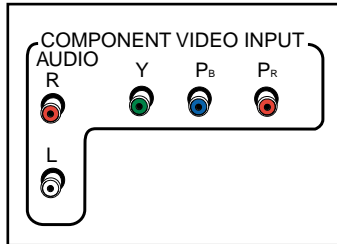
COMPONENT VIDEO INPUT   Use to connect an optional component video source, such as a DVD player. This connection provides optimum quality. Note that it is essential to match the color coded connectors between a compatible device and the television.

> **Notes:**
>
> - When watching an image via the COMPONENT VIDEO INPUT jacks, you will not be able to manipulate the screen format.
>
> - If the component you're connecting to the TV has Component Output jacks that aren't labeled Y P_B and P_R, the color of the picture displayed on your TV might not look right because other types of Component Video (sometimes labeled Y, Cr, Cb, or YUV) separate the colors differently.

- **AUDIO R/L**   The audio jacks provide stereo sound. When connected, audio volume from the main front and rear speakers is variable audio.

- **Y P_B P_R**   Unlike a single video input, component video maintains the video signal as three separate signals through these three jacks. To ensure maximum picture quality, use three video-grade cables for the Y, P_B and P_R connections.
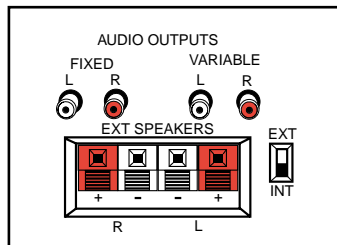
AUDIO OUTPUTS

- **FIXED L/R**   Provides fixed-level of audio output from the television. This audio output is ideal for audio recording or for connecting to an A/V receiver amplifier (an auxiliary baseband component) when you want to control the volume through the A/V receiver instead of the TV. Be sure to turn off the internal speakers in the TV's menu system (go to page 111 for details).

- **VARIABLE L/R**   Use to connect an A/V receiver or amplifier (an auxiliary baseband component) for variably-controlled stereo output.

- **RIGHT and LEFT Speaker Terminals**   Use to connect external speakers for right and left surround sound.

- **INT / EXT (switch)**   INT sends audio to the TV's internal speakers only. EXT sends audio to the external speakers only.

Chapter 2 ▶ Connections & Setup
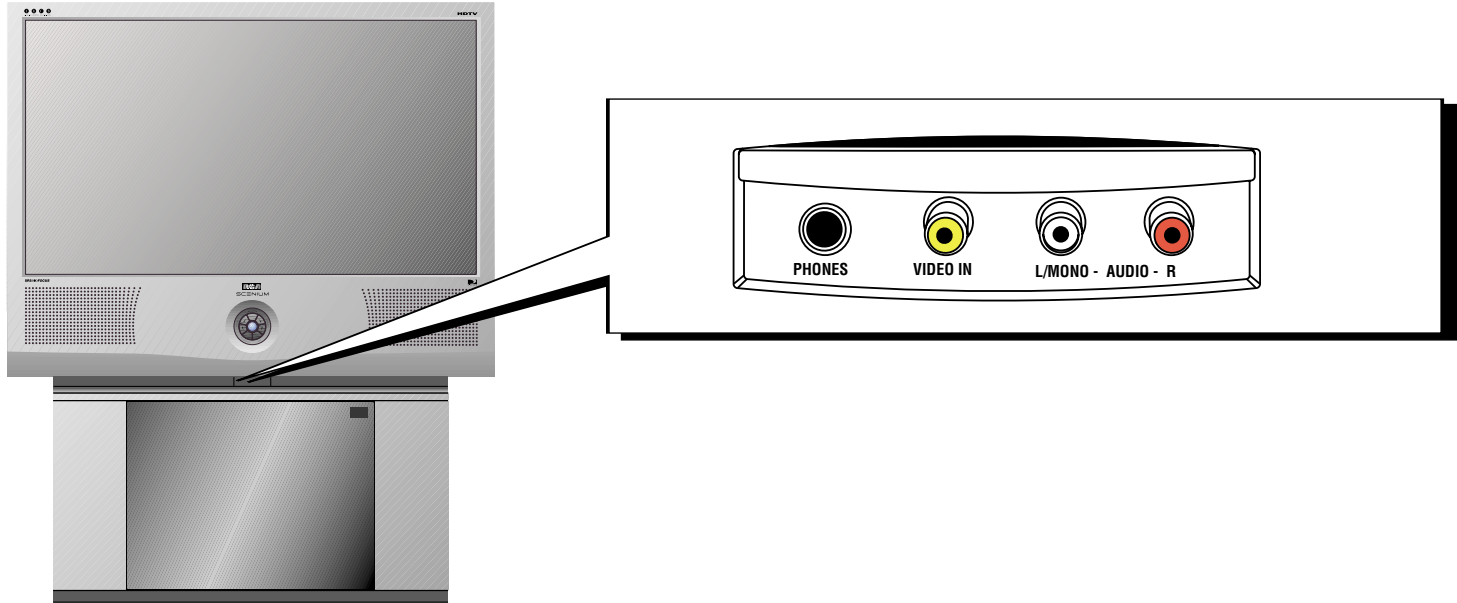
Input Jacks on the front of your TV

Your LCOS television has a set of audio and video input jacks and a headphone jack on the front of the TV. These jacks are convenient for connecting baseband (analog) components such as video game players, camcorders, or internet access devices. To access these input jacks, push towards the top of the cover that conceals the input jacks until the latch releases.

PHONES   Provides a connection for headphones.

VIDEO   Provides video connection. The video connector is usually yellow.

L/MONO   Provides left audio connection. The left audio connector is usually white. When connecting devices that use a monaural cable, such as some camcorders, use the left input jack to get sound from both speakers.

AUDIO R   Provides right audio connection. The right audio connector is usually red.
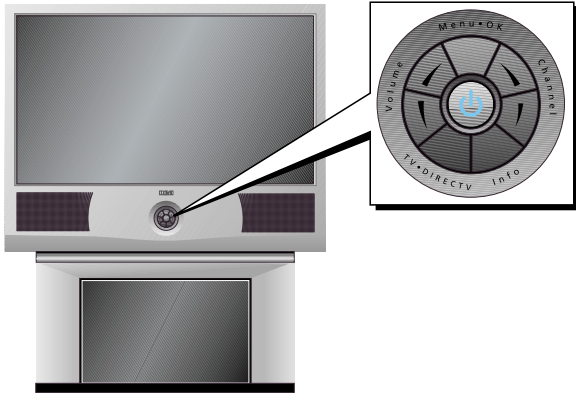
Buttons on the front of your LCOS TV

If you can't find your remote control, you can use the buttons on the front of the TV to operate many of the TV's features.

(Power button) Turns the TV on and off.

MENU•OK Makes the main menu appear on the screen, and selects highlighted menu items.

CHANNEL (up) Scrolls up through the channel list. If you are in TV mode, you scroll up through TV channels. If you subscribe to DIRECTV® programming and are in DIRECTV mode, you scroll up through DIRECTV channels.

When a menu is on the screen, CHANNEL up moves the highlight up (like the up arrow button on the remote control), and adjusts menu controls.

CHANNEL (down) Scrolls down through the current channel list. If you are in TV mode, you scroll down through TV channels. If you subscribe to DIRECTV® programming and are in DIRECTV mode, you scroll down through DIRECTV channels.

When a menu is on the screen, CHANNEL down moves the highlight down (like the down arrow button on the remote control) and adjusts menu controls.

INFO Brings up the on-screen channel banner. When the program guide is on the screen, press INFO to get more information about the highlighted program or highlighted channel.

TV•DIRECTV Toggles between TV mode and DIRECTV mode.

VOLUME (down) Decreases the volume. When in the menu system, VOLUME down moves the highlight left (like the left arrow button on the remote control) and adjusts menu controls.

VOLUME (up) Increases the volume. When in the menu system, VOLUME up moves the highlight right (like the right arrow button on the remote control) and adjusts menu controls.
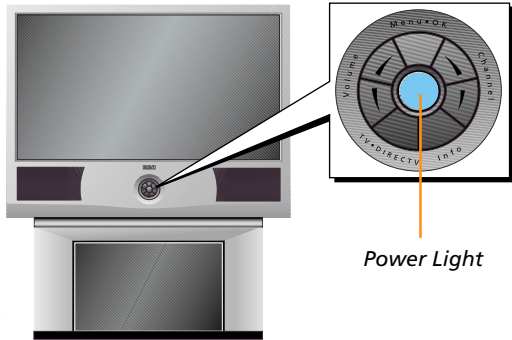
Power Light

The Power Light

The power light on the front of your TV (sometimes called an L.E.D.) also functions as an important indicator: it lets you know what's happening inside of your TV.

Your LCOS television is equipped with a special lamp unit that is part of the system that enables your TV to display such crisp images (explained in Chapter 1). The lamp needs to warm up and cool down when you turn on and turn off your TV respectively. The power light gives you information about the lighting system of your TV.

Light blinks: you've tried to turn on the TV when the lamp unit is cooling. Wait approximately 30 seconds and turn on the TV again.

A series of blinking (the light blinks, pauses for about a minute, blinks again, pauses for about a minute, and then flashes for approximately one minute): there is problem with the lamp unit — most likely the lamp unit needs to be replaced (go to page 144 in Chapter 7 for details).

How to turn off the power light

Even though this power light is designed to add aesthetic appeal to your high-end television, some people might prefer to turn it off when they're watching the TV in a dimly lit or dark room.

To turn off the power light, go to the main menu and select *Preferences*, select the *Power Light* menu, and select *Off Always*. Go to page 125 in Chapter 6 for more information.

> Note: The power light's indicator functions (explained previously) will still work even if you turn off the power light.

What to Expect

Your LCOS television has to check many functions each time you turn it on. You'll notice that it takes several seconds for the picture to reach peak quality and brightness when you turn on the TV. Additionally, the very first time you turn on your LCOS television, it might take a minute or so to see the picture.

Your LCOS TV is equipped with cooling fans. A slight humming noise is normal. Additionally, one of the fans runs continuously which means you might hear a slight humming noise even though you've turned off the TV.

Next Steps

Now that you've connected your TV, turned it on, completed the interactive setup — you're ready to enjoy high definition television at its finest.

Your LCOS television came with a specially designed remote control that is capable of operating most components and most brands. Now might be a good time to read about the remote control's features and program it.

Just as a reminder, keep this book for reference. The following chapters and a brief description of their content is below:

Chapter 3: The Remote Control, explains how to program the remote to operate other components, explains the many features of the remote, and lists the display messages you might encounter.

Chapter 4: Basic Operation, explains how to switch back and forth between DIRECTV mode and TV mode, and explains the channel banner that appears when you change channels.

Chapter 5: Features, describes the program guides that are available to help you keep track of all the programs and channels. Chapter 5 also explains profiles and the V-Chip.

Chapter 6: The Menu System, explains the various options and preferences available.

Chapter 7: Help & Assistance, is the first place to go if you're having trouble. Chapter 7 contains a troubleshooting section, details about the Assistance menu, your warranty, and lists accessories for this product.

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LCOS ILLUMINATED

Overview:

RCA SCENIUM

Graphics are for representational purposes.
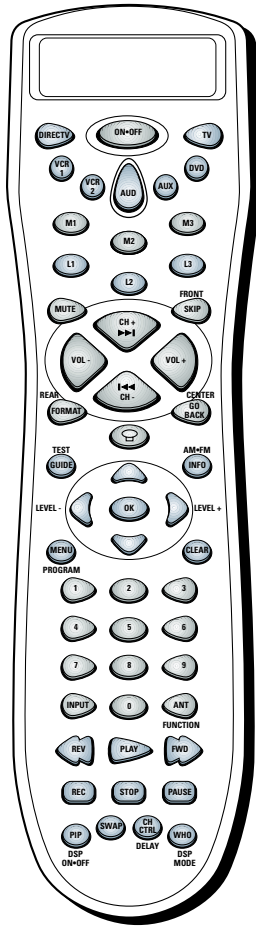
Buttons (in alphabetical order)

The buttons in blue text are audio buttons (you have to press the AUD button first in order for them to function as described). The audio button descriptions might not apply to your equipment.

> **Note:** It's important to remember that this section explains how these buttons might operate if you've connected an audio component to your TV, programmed the remote to operate that component, and your audio component supports that particular function.

🔘 **(Backlight button)** Press and hold to enter programming mode (*CODE SET* appears in the remote's display). Press and release to illuminate the buttons (to conserve battery power, the light turns off after 5 seconds if you don't press any other buttons). Pressing this button also controls the default (on/off) of the backlight the next time you press a button.

0-9 (Number buttons) Enter channel numbers and time settings directly through the remote control. For more information on entering number buttons to change channels, go to Chapter 4 (page 73). When a menu is on the screen, you can press the number buttons to directly highlight items instead of using the arrow buttons.

Tip: Number buttons

When the menu system is on the screen, you can press 0 to go to the previous menu.

Arrow buttons (up, down, left, right) Press the arrow buttons to move through the on-screen menu system and highlight items. When the PIP window is on the screen, press the arrow buttons to move the PIP window (but you can't move the PIP window when the channel banner is on the screen — see page 76 for more information).

AM • FM Selects the AM or FM band on your audio system if you've connected a system to your TV (you must press the AUD button first to put the remote in audio mode).

ANT Switches the source of the off-air signal between the HDTV's ANTENNA A and B. When in VCR mode, the ANT button also functions as a TV/VCR button.

AUD Switches the remote to audio mode so the audio buttons work. Those buttons are AM • FM, CENTER, REAR, FRONT, LEVEL + AND LEVEL -, DSP ON•OFF, PROGRAM, FUNCTION, TEST, and DELAY.

AUX Places the remote in auxiliary mode in order to operate the component (such as a cable box or internet device) that you've programmed to work with this button.

CENTER   Used with the LEVEL + and LEVEL – button to adjust the level of the center speaker of your audio system if you've connected one to your TV (you must press the AUD button first to put the remote in audio mode).

CH +/-   Scrolls up or down through the current channel list. Press once to change the channel up or down; press and hold to continue changing channels. If you're in TV mode and press CH+/-, you scroll through TV channels. If you subscribe to DIRECTV® programming and the remote is in DIRECTV mode, you scroll through DIRECTV® channels.

CH CTRL (Channel control)   Used with the PIP feature to control where the channel is changed (the PIP window or the main picture) when you press the channel up, channel down, INPUT, or number buttons. You can tell which picture will be changed by looking at the channel banner (a triangle points to the window that has channel control).

CLEAR   Removes on screen displays from the TV, and from the remote's display window. If no displays are present and the skip timer is set, press CLEAR to cancel the commercial skip timer.

DELAY   Increases or decreases the delay between the surround and main speakers when the receiver is in surround sound mode (you must press the AUD button first to put the remote in audio mode).

DIRECTV   When TV is off, pressing this button turns on the TV and puts it in DIRECTV mode (DIRECTV on the channel banner will be highlighted). If you subscribe to DIRECTV® programming, you must be in DIRECTV mode to view DIRECTV® channels.

DSP MODE (Digital Signal Processor Mode)   Cycles through the available DSP modes if you've connected a receiver to your TV and your receiver supports this function (you must press the AUD button first to put the remote in audio mode).

DSP ON•OFF (Digital Signal Processor on and off)   Turns the receiver's digital signal processor on and off if you've connected a receiver to the TV and the receiver suports this function (you must press the AUD button first to put the remote in audio mode).

DVD   Places the remote control in DVD mode. If you have set up auto tuning, pressing the DVD button tunes the TV to the correct video input channel.

FORMAT Toggles through screen formats (Normal, Fill, and Full).

Chapter 3 ▶ The Remote Control
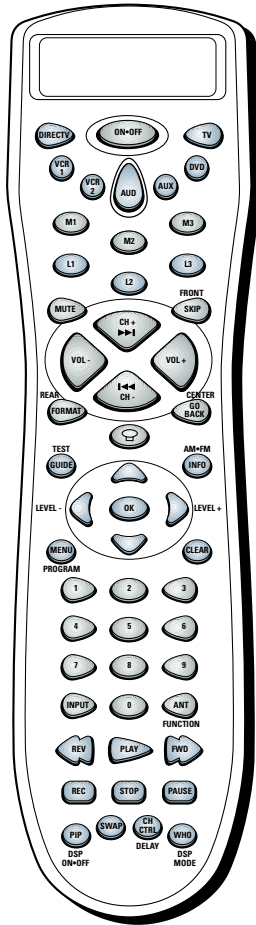
FRONT Used with the LEVEL + and LEVEL – button to adjust the level of the front speakers of your audio system if you've connected one to your TV (you must press the AUD button first to put the remote in audio mode).

FUNCTION For RCA audio products, toggles between stereo and mono.

FWD If you're operating a VCR, DVD Player, CD Player, or a tape player with the remote control, press this button to advance the videotape, audio tape, or disc.

GO BACK Moves you back and forth between the last two channels selected in either DIRECTV mode or TV mode. For example, if you have been viewing both DIRECTV® and TV channels (and thus using both the DIRECTV and TV modes), pressing GO BACK while watching a DIRECTV® channel moves you back to the last DIRECTV® channel you viewed. Pressing it while watching a TV channel moves you to the last TV channel you viewed.

In the menu system, press GO BACK to return to the previous menu screen.

GUIDE When in TV mode, makes the TV program guide appear. In DIRECTV mode, makes the DIRECTV® programming guide appear. Subsequent presses of the GUIDE button scroll through the different types of guides.

INFO Gives you more information about the channel and program by making the channel banner appear. Quickly press again when the channel banner is on the screen (an extended channel banner appears). To remove the banner, press INFO a third time.

INPUT Toggles through the TV's available external input sources (video input channels).

L1, L2, L3 (Learning 1, 2, 3) Use these buttons to supplement the codes that are already programmed into your remote control. Go to page 50 to find out more about these learning buttons and how they work.

TIP: GUIDE button

Press INPUT and then press GUIDE to get a guide-like list of available video input channels.

TIP: INFO button

Press INFO when in the program guides to get more information on the highlighted program or channel.

LEVEL – and LEVEL +   Used to make adjustments to delay time, center speaker output level, rear speaker output level, front speaker output level, or subwoofer output level if your audio receiver supports this function. You must press the AUD button first to put the remote in audio mode.

M1, M2, M3   Use these buttons to store macros (shortcuts) that you set up in order to alleviate having to press many buttons. For details, go to page 53.

MENU   Brings up the main menu.

MUTE   Reduces the TV's volume to its minimum level. Press again to restore volume.

OK   When a menu is on the screen, press OK to select the item that is highlighted.

ON•OFF   When the remote control is in TV or DIRECTV mode, ON•OFF turns the TV on or off. If the remote is in another component mode (VCR, DVD, etc.) and the component button is programmed, the remote will turn the component on and off.

PAUSE   When you're operating another component (like a VCR or DVD Player), press PAUSE to pause playback.

PIP (Picture-In-Picture)   Makes the PIP window appear and disappear.

PLAY   When you're operating another component (such as a VCR or DVD Player), press PLAY to start playing the videotape or disc.

PROGRAM   Programs audio preset channels (you must press the AUD button first to put the remote in audio mode).

REAR   Used with the LEVEL + and LEVEL – button to adjust the level of the rear speakers of your audio system if you've connected one to your TV (you must press the AUD button first to put the remote in audio mode).

REC   If the remote is in VCR mode, press REC to record programming.

REV   If you're operating another component (such as a VCR or DVD Player), press REVERSE to go backwards on a disc or videotape.

SKIP   Press once before changing channels and the TV will return to the original channel after 30 seconds. Press repeatedly to add more time.

TIP: MENU button

When using an RCA, GE, or Proscan VCR and in VCR mode, the MENU button functions as a PROGRAM button.

Tip: ON•OFF button

When pressed twice within two seconds, all components that are on will be turned off (this feature only works with most RCA, GE, and Proscan products).

Tip: SKIP button

To cancel commercial skip, press CLEAR.
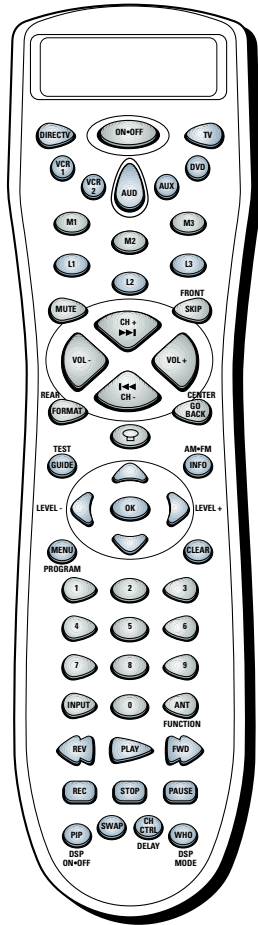
STOP If you're operating another component (such as a VCR or DVD Player), stops playing the disc or videotape.

SWAP Used with the PIP feature. Press SWAP to switch the main picture with the PIP window.

TEST Used to test speaker balance after you've made adjustments (you must press the AUD button first to put the remote in audio mode).

TV Turns on the TV and tunes to the last-viewed TV channel. Also places the remote control in TV mode. Placing the remote in TV mode enables you to access the TV's menu system as well as tune to analog, digital terrestrial, or cable TV channels.

VCR1 Places the remote control in VCR mode. If auto tuning is enabled, when you press VCR1 the TV will turn on and tune the TV to the correct video input channel so you can see the content of the videotape that's playing in the VCR.

VCR2 Places the remote control in VCR mode. If auto tuning is enabled, when you press VCR2 the TV will turn on and tune the TV to the correct video input channel so you can see the content of the videotape that's playing in the VCR.

VOL +/- Increases/decreases the volume of the TV.

WHO Toggles through user profiles.

Display Messages

The following list contains the messages that appear in your remote control's display window. The messages are divided into 3 categories:

- programming mode (messages that appear when you're programming the remote to operate other components)

- response messages that provide feedback

- action messages that prompt you to take a certain action

CODE SET	
MAN SRCH	
AUTO SRCH	
IR LEARN	
IR DELETE	
VOL LOCK	
VOL UNLOCK	
KEY MACRO	
MODE MAP	
DISCRETE ADD	
DISCRETE CLEAR	
CLOCK SET	
OPS RESET	
MFR RESET	

Display Messages (when remote is in programming mode)

CODE SET	Set up a code.
MAN SRCH	Manual code search.
AUTO SRCH	Automatic code search from the remote's code library.
IR LEARN	Learn additional functions into a button.
IR DELETE	Delete the learned function from a button.
VOL LOCK	Locking the volume of the remote to a designated component.
VOL UNLOCK	Unlocking the volume of the remote from a locked component.
KEY MACRO	Set up or delete a macro button sequence for a button.
MODE MAP	Reassign (or map) from one component to another.
DISCRETE ADD	Adds a discrete RCA code to a button.
DISCRETE CLEAR	Clears a discrete RCA code that you added onto a button.
CLOCK SET	Setting the clock time on the remote.
OPS RESET	Operational reset clears functions you programmed, except for component programming (go to page 58 for details).
MFR RESET	Manufacturing reset clears all programmed functions and returns the remote control to its original state. This option doesn't appear in the main *CODE SET* menu (you have to press a series of buttons to access it). Go to page 58 for details.

BAD E2

DELETED

END CYCLE

ERROR

EXIT SETUP

INVALID

MAX=15

MEM FAULT

MEM FULL

NOT FOUND

RESET E2

RESET RAM

SUCCESS

UNLOCKED

Display Messages (response messages)

BAD E2	The remote probably needs serviced or replaced. This message indicates that the EEPROM is faulty (the EEPROM is used to store the programmed codes, the mode of the remote, learned codes, and macros).
DELETED	A requested Learned Sequence was deleted.
END CYCLE	The remote is finished checking all of the codes in its code library.
ERROR	Any other error not specifically mentioned.
EXIT SETUP	Escape or exit from the programming mode, or time-out.
INVALID	A wrong button sequence or invalid data.
MAX=15	Notifies you that you've exceeded the maximum number of button strokes allowed in a Macro Sequence (15).
MEM FAULT	A learned button data storage encounters some error in memory.
MEM FULL	A learned button data storage encounters memory full.
NOT FOUND	A requested setup code not found in the code library.
RESET E2	Indicates the EEPROM reset action has been completed.
RESET RAM	Indicates the RAM reset action has been completed.
SUCCESS	A required task or operation was successful.
UNLOCKED	Message to notify you that the Volume function is unlocked.

CLR SETUP

CONFIRM

DELETING

ENTER SEQ

FROM MODE

LEARNING

OK TO END

SEL MACKEY

SEL KEY

TO MODE

Display Messages (action messages)

CLR SETUP   Prompts you that setup control is going to be cleared.

CONFIRM   Prompts you to confirm or take action on an operation.

DELETING   Information from the selected key is being deleted.

ENTER SEQ   Prompts you to enter a button stroke for the macro sequence.

FROM MODE Prompts you to enter the source mode in Mode Reassignment.

LEARNING   Prompts you to start and proceed learning the IR data into a button.

OK TO END   Prompts you to press (and hold down for at least 3 seconds) the OK button to return to normal operation.

SEL KEY   Prompts you to select a button.

SEL MACKEY (Select Macro Key) Prompts you to enter a button that will be designated as the Macro button.

TO MODE   Prompts you to enter the destination mode in Mode Reassignment.
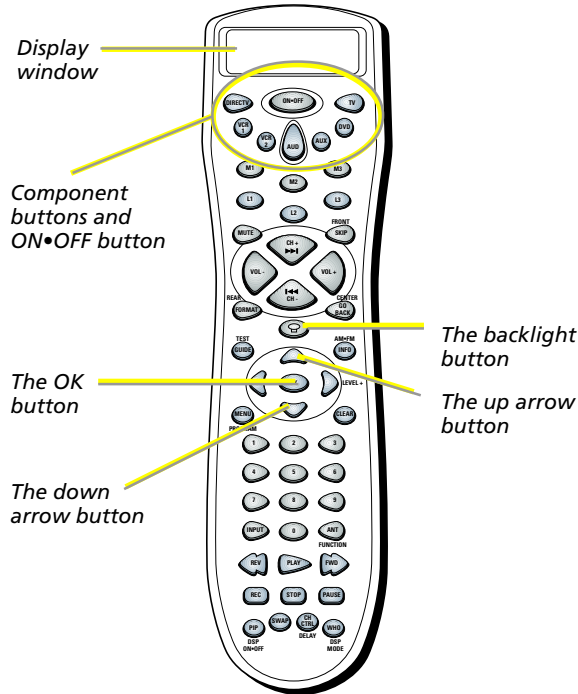
Display window

Component buttons and ON•OFF button

The OK button

The down arrow button

The backlight button

The up arrow button

How to Stop Programming

To exit programming mode, press the CLEAR button at any time (EXIT SETUP appears in the remote's display to confirm that no new codes have been entered).

Programming the remote to Operate Components

Your remote control can be programmed to operate most brands of remote-controllable VCRs, audio components, DVD players, cable boxes, and many other components. In addition to being programmed to operate your LCOS television, it's already programmed to operate most RCA, GE, and Proscan VCRs, DVD players, satellite receivers, and laserdisc players.

Find out if you need to program the remote

To determine whether your remote needs to be programmed to operate one of the components connected to your TV, such as a VCR, do the following:

1. Turn on the component (in this example, a VCR).

2. Point the remote at the component.

3. Press the corresponding component button (in this example VCR1).

4. Press ON•OFF to see if the component responds. If the component doesn't respond, you need to program the remote to operate it.

How to program the remote

There are three ways to program your remote control: automatic code search, manual code search, and direct entry (instructions are described next).

Notes:
- If approximately 30 seconds passes before a button is pressed, the display window stops transmission to conserve battery life. If this occurs, restart from step 1.
- To exit programming mode, press the CLEAR button at any time (*EXIT SETUP* appears in the remote's display to confirm that no new codes have been entered).

How to use automatic code search

This remote control offers you two types of automatic code searching: auto search and manual search. Instructions for both types follow.

Auto Search *(AUTO SRCH)*

1. Make sure the component you want to program the remote control to operate is on (let's use a VCR in this example).

2. Press the component button on the remote that corresponds to the component you want to program the remote to operate (in this example, the VCR1 button).

    Note: You can't program the TV or DIRECTV component buttons. If you want to program this remote control to operate another TV or a satellite system, press the AUX button (or VCR1, VCR2, DVD, AUD) and choose *TV* or *SAT* from the list that appears in the remote's display – see step 5 below.

3. Press and hold ⬭ (the backlight button) until *CODE SET* appears in the remote's display window.

4. Press the down arrow button until you reach *AUTO SRCH* in the remote's display window. Then press the OK button.

5. Press the down arrow button to scroll to the desired component *(TV, VCR, TAPE, LDP, DAT, DVD, CD, TUNER, AMP, HOME, MISC, PHONO, CAB, SAT, VIDEO).* In this example, press the down arrow button until VCR appears in the remote control's display.

6. Press the OK button to start the automatic code search. The remote must be in a position where a signal can be sent to the component (the remote starts sending codes to the component).

    Note: If you press any buttons during the auto search, the remote will stop searching and start a manual search.

7. When the remote is searching the codes, it sends a power signal to check the code's validity. Look at the component you're programming the remote to operate (in this example, the VCR). When the VCR turns off, the remote has found the right code.

8. Press OK to save the code (*SUCCESS* appears in the remote's display window followed by *EXIT SETUP*).

    Note: The code list defaults so you can only scroll through the list once. When the remote is finished advancing through all of the codes in its library, *END CYCLE* appears flashes in the display, followed by *EXIT SETUP*.

9. Make sure the remote has correctly programmed the desired component (in this example, your VCR): press the VCR1 button followed by the ON•OFF button to see if your VCR turns on. If the component doesn't turn on, try the following:

    • Try again by repeating the previous steps.

    • Try programming the remote using direct entry method (go to page 48).

    • Use the Learning Feature to transfer the component's most important functions to your LCOS TV remote control (go to page 50).

    • Review the following notes.

    Notes:

    •   This remote control cannot be programmed to operate some brands of components.

    •   If approximately 30 seconds passes before a button is pressed, the display window stops transmission to conserve battery life. If this occurs, restart from step 1.

    •   To exit programming mode, press the CLEAR button at any time (*EXIT SETUP* appears in the remote's display to confirm that no new codes have been entered).

Display window

Component buttons and ON•OFF button

The OK button

The down arrow button

The backlight button

The up arrow button

How to Stop Programming

To exit programming mode, press the CLEAR button at any time (EXIT SETUP appears in the remote's display to confirm that no new codes have been entered).

Manual Search *(MAN SRCH)*

1. Make sure the component you want to program the remote control to operate is on (let's use a VCR in this example).

2. Press the component button on the remote that corresponds to the component you want to program the remote to operate (in this example, the VCR1 button).

   Note: You can't program the TV or DIRECTV component buttons. If you want to program this remote control to operate another TV or a satellite system, press the AUX button (or VCR1, VCR2, DVD, AUD) and choose *TV* or *SAT* from the list that appears in the remote's display – see step 5 below.

3. Press and hold ⊙ (the backlight button) until *CODE SET* appears in the remote's display window.

4. Press the down arrow button until you reach *MAN SEARCH* in the remote's display window. Then press the OK button.

5. Press the down arrow button to scroll to the desired component *(TV, VCR, TAPE, LDP, DAT, DVD, CD, TUNER, AMP, HOME, MISC, PHONO, CAB, SAT VIDEO)*. In this example, press the down arrow button until VCR appears in the remote control's display.

6. Press the OK button (a code appears in the remote's display).

7. Press OK to send this code to the VCR. Make sure the remote is in a position where a signal can be sent to the component. Look at the component you're programming the remote to operate (in this example, the VCR). When the VCR turns off, the remote has found the right code.

   • If the component turns off, press OK to save the code (*SUCCESS* appears in the remote's display window followed by *EXIT SETUP*).

   • If the component stays on, press the arrow down button to try the next code. Press the OK button. Continue until the component turns off (meaning the correct code has been located).

Note: The code list defaults so you can only scroll through the list once. When the remote is finished advancing through all of the codes in its library, the message *END CYCLE* appears for 1 second followed by *EXIT SETUP*.

8. Make sure the remote has correctly programmed the desired component (in this example, your VCR): press the VCR1 button followed by the ON•OFF button to see if your VCR turns on. If the component doesn't turn on, try the following:

   • Try again by repeating the previous steps.

   • Try programming the remote using direct entry method.

   • Use the Learning Feature to transfer the component's most important functions to your LCOS TV remote control (go to page 50).

   • Review the following notes.

   Notes:
   • This remote control cannot be programmed to operate some brands of components.
   • If approximately 30 seconds passes before a button is pressed, the display window stops transmission to conserve battery life. If this occurs, restart from step 1.
   • To exit programming mode, press the CLEAR button at any time (*EXIT SETUP* appears in the remote's display to confirm that no new codes have been entered).

How to Stop Programming

To exit programming mode, press the CLEAR button at any time (EXIT SETUP appears in the remote's display to confirm that no new codes have been entered).

How to use direct entry *(CODE SET)*

1. Make sure the component you want to program the remote control to operate is turned on (let's use a VCR in this example).

2. Press the component button on the remote you want to program (in this example, the VCR1 button).

   Note: You can't program the TV or DIRECTV component buttons. If you want to program this remote control to operate another TV or a satellite system, you need to use the AUX button (or VCR1, VCR2, DVD, AUD) as your component button.
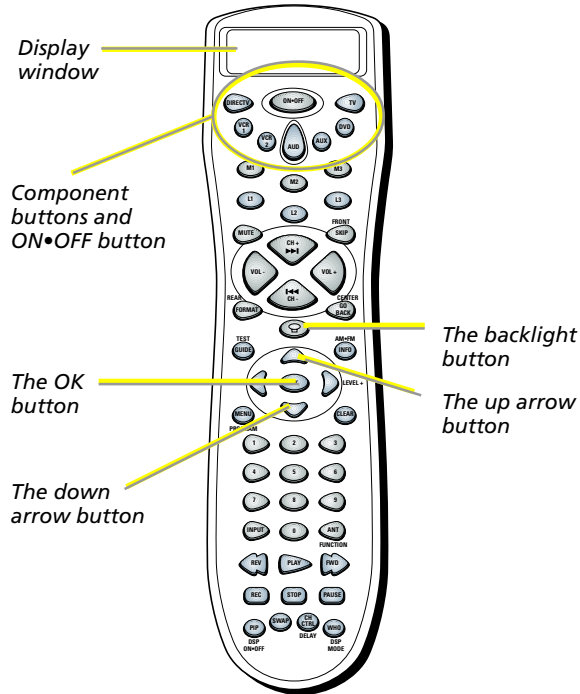
Display window

Component buttons and ON•OFF button

The OK button

The down arrow button

The backlight button

The up arrow button

3. Press and hold ⌾ (the backlight button) until *CODE SET* appears in the remote's display window. Press the OK button.

4. Press the down arrow button to scroll to the desired component *(TV, VCR, TAPE, LDP, DAT, DVD, CD, TUNER, AMP, HOME, MISC, PHONO, CAB, SAT VIDEO)*. In this example, press the down arrow button until VCR appears in the remote control's display.

5. Use the number buttons on the remote to enter the code for your brand (the Code List starts on page 62). Press OK.

    SUCCESS appears in the remote control's display window when the code is correct.

    If *NOT FOUND* appears in the remote control's display window, repeat step 5 by entering the next code from the list.

6. To exit, press the CLEAR button (*EXIT SETUP* appears and the remote is ready to use).

7. Make sure the remote has correctly programmed the desired component (in this example, your VCR): press the VCR button followed by the ON•OFF to see if your VCR turns on. If the component doesn't turn on, try the following:

    • Try again by repeating the previous steps listed. Make sure you're looking in the correct section of the code list (i.e., you might have the correct brand name, but you might be looking at the wrong type of component).
    • Try programming the remote using one of the automatic code search methods (go to page X).
    • Use the Learning Feature to transfer the component's most important functions to your LCOS TV remote control (go to page 45 or 47).
    • Review the following notes.

    Notes:

    • This remote control cannot be programmed to operate some brands of components.
    • If approximately 30 seconds passes before a button is pressed, the display window stops transmission to conserve battery life. If this occurs, restart from step 1.
    • To exit programming mode, press the CLEAR button at any time (*EXIT SETUP* appears in the remote's display to confirm that no new codes have been entered).

The Learning Feature (L1, L2, L3 buttons) — *IR LEARN*

The Learning feature is used to add codes from another remote control. Your LCOS remote control provides most of the functions needed, but you can add a small number of additional functions of your choice.

> Note: Make sure both remote control's are in the same component mode. For example, if you're learning a button from a remote control that came with VCR, make sure both remote controls are in VCR mode because you'll be using the learned functions when you're in VCR mode.

Setting Up a Learning Sequence

1. Place your LCOS TV remote control and the other remote control so that they face each other. They should not be any more than 2 inches apart.

up to 2 inches apart
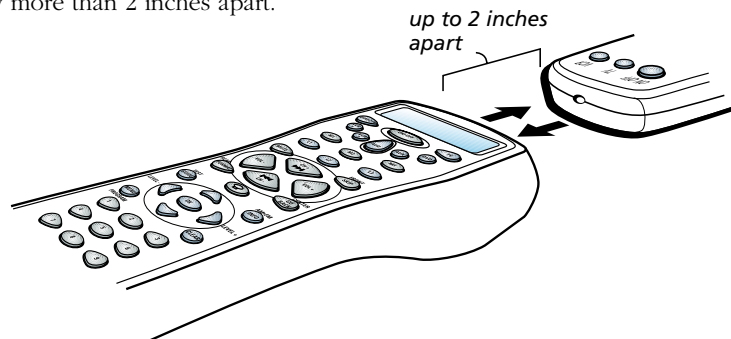
2. Press and hold ⬭ (the backlight button) until *CODE SET* appears in the remote's display.
3. Press the down arrow button until *IR LEARN* appears in the remote's display, then press the OK button (the current mode of the remote control appears in the display window).
4. Press OK (*LEARNING* appears in the LCOS remote's display for several seconds to allow you to capture the IR data).
5. Press L1, L2, or L3 button to designate the button where the functions from the other remote will be stored. You can use buttons other than L2, L2, L3 to learn functions, but you can't use the following buttons: CLEAR, backlight, M1, M2, M3, TV, DIRECTV, VCR1, VCR2, AUD, AUX, and DVD.
6. Press and hold the button on the other remote control, which has the function you want to store. Hold the button for at least 3 seconds or until a message appears in the remote's display.

Note: Too much light (either natural or fluorescent) might cause the learning feature to fail since the remote controls are passing data via infrared (IR) signals.

7. Repeat steps 5 and 6 to store more functions.

8. When the selected functions are stored press the CLEAR button to exit (*EXIT SETUP* appears in the remote's display and the remote returns to original operation mode).

Notes:

•   Every time a code is successfully learned, *SUCCESS* appears in the display.

•   Press the CLEAR button at any time to exit the programming mode (*EXIT SETUP* will appear to confirm that no new codes have been entered).

•   If you press a button that can't be used to learn another function, *INVALID* appears in the remote's display.

•   The learning capacity is approximately 16 to 25 buttons, depending on the function being learned.

How to Delete a Learning Sequence (L1, L2, and L3 buttons) — *IR DELETE*

To delete a learned button sequence, either overwrite it with a new button, or use the procedure below.

1. Press and hold ⬭ (the backlight button) until *CODE SET* appears in the remote's display.

2. Step through the programming menu by pressing the down arrow button until *IR DELETE* appears in the remote's display, then press the OK button.

3. Press the button to be deleted (L1, L2, L3) on your remote control.

4. If the button is a valid one, the learned data that was stored in the button has now been deleted (*DELETED* appears in the remote's display).

continues on next page

Display window

L1, L2, L3 buttons

The backlight button

The OK button

The down arrow button
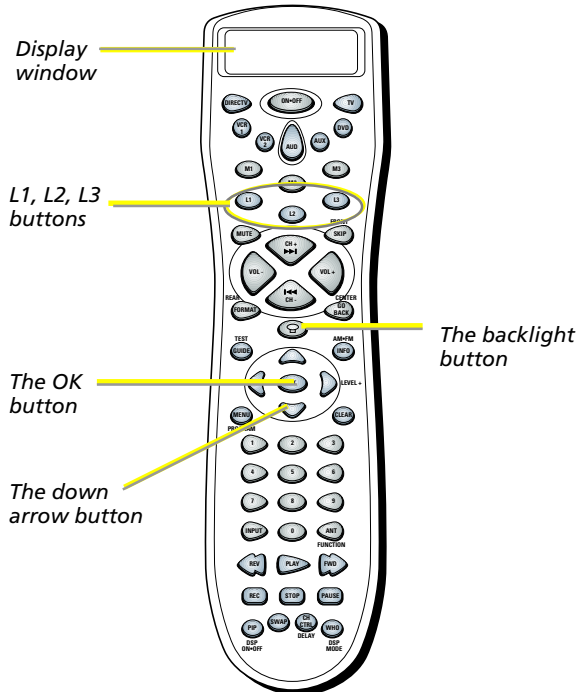
5. Repeat steps 4 and 5 to delete more functions.

6. When the selected functions are deleted press the CLEAR button to exit the IR DELETE programming mode. (*EXIT SETUP* appears in the remote's display and the remote returns to its original operation mode).

Notes:

- Press the CLEAR button at any time to exit the programming mode (*EXIT SETUP* will appear to confirm that no new codes have been entered).

- If about 30 seconds passes before a button is pressed, the LCD display window will stop transmission to conserve battery life. If this occurs, restart from step 1.

- To delete all learned keys at one time, do an operations reset or a manufacturer's reset (go to page 58 for instructions).
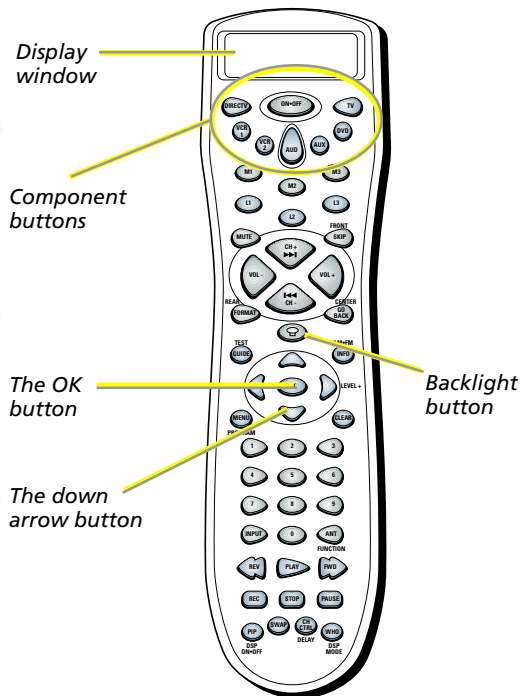
How to Use the Volume Lock Feature

This programming mode will lock the volume of the components that have volume control. You may need to experiment with your system since products made by different manufacturers work differently.

Locking the Volume *(VOL LOCK)*

1. Press and hold ⊙ (the backlight button) until *CODE SET* appears in the remote's display.

2. Step through the programming menu by pressing the down arrow button until *VOL LOCK* appears in the remote's display window, then press the OK button.

3. The display message *TO MODE* appears, prompting you to enter the component to apply the volume lock.

4. Push the component button of your choice to apply the VOL LOCK mode.

5. If you've pressed a valid component button, *SUCCESS* appears, followed by *EXIT SETUP*.

Display window

Component buttons

The OK button

The down arrow button

Backlight button

Note: If you press any button other than the component buttons (DIRECTV, TV, VCR1, VCR2, DVD, AUD & AUX), the error message *INVALID* will appear in the remote's display until you press one of the component buttons or the CLEAR button.

Unlocking the Volume *(VOL UNLOCK)*

The Volume Unlock mode will apply if the Volume Lock has been activated.

1. Press and hold ⊙ (the backlight button) until *CODE SET* appears in the remote's display.

2. Step through the programming menu by pressing the down arrow button until *VOL UNLOCK* appears in the remote's display, then press the OK button (the remote resets itself to volume unlock mode and *UNLOCKED* appears in the display.

3. EXIT SETUP appears and the remote returns to normal operation.

    NOTE: Press the CLEAR button at any time to exit the programming mode. An *EXIT SETUP* message will appear and the remote will return to its normal operation.

How to Use the Macro Feature (M1, M2, M3 buttons)

Macro is a command, which defines a sequence of several operations. Each macro button enables you to program as many as 15 button strokes in a sequence. For example: you could program a button macro to turn on your TV, turn on your DVD Player and start playing the DVD.

1. Press and hold ⊙ (the backlight button) until *CODE SET* appears in the remote's display.

Display window

Macro buttons (M1, M2, and M3)

The backlight button

The OK button

The down arrow button

Display window

Macro buttons (M1, M2, and M3)

The OK button

The down arrow button

The backlight button
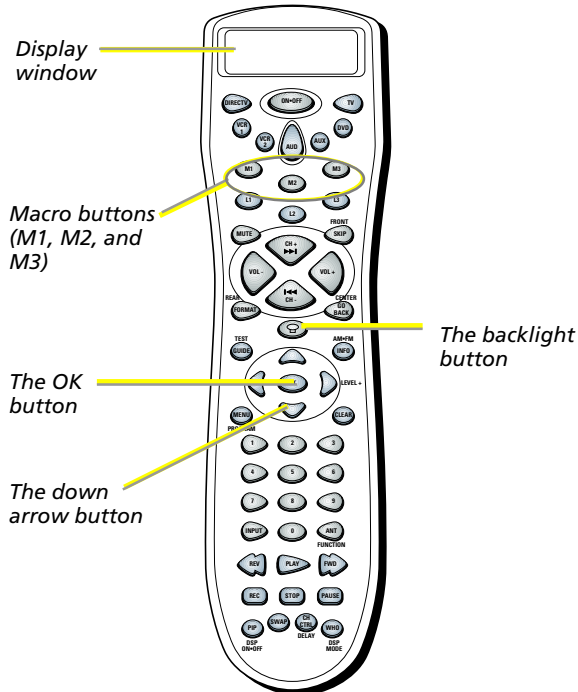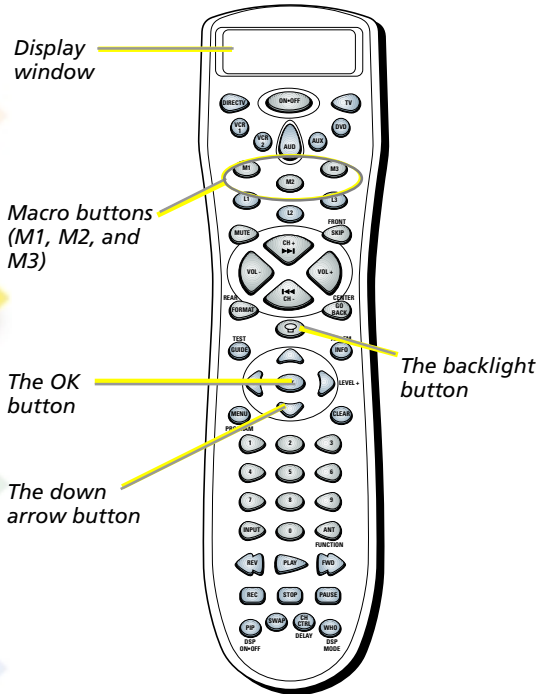
A delay of 250 ms (milliseconds) is automatically inserted between each command. You can insert an additional 250 ms delay each time you press M1, M2, or M3.

2. Step through the programming menu by pressing the down arrow button until *MACRO* appears in the remote's display, then press the OK button.

3. Once the OK button is pressed, *SEL MACKEY* will appear in the remote's display window prompting you to press a Macro Key (M1, M2, M3).

   NOTE: If the button is an invalid Macro Key, *INVALID* appears and the remote will stay in Macro programming mode until you press a valid Macro Key.

4. After you press a Macro Key (M1, M2, M3), *ENTER SEQ* appears in the display. Enter the series of button strokes, up to 15 buttons, that you wish to be played back when you press the designated Macro button. After you enter the first button for the macro sequence, the display message changes to *OK TO END*.

   Note: If more than 15 buttons are entered, *ERROR* followed by *MAX=15* will appear. The remote will return to *SEL MACKEY* again for you to set up the macro sequence again.

5. Press and hold down the OK button for 3 seconds to complete the programming sequence (*SUCCESS* followed by the message *EXIT SETUP* appears in the remote's display).

   Notes:

   • If the Macro doesn't work, try inserting an additional delay into the macro sequence. This is helpful when your macro sequence requires the TV to switch modes. The M1, M2, or M3 buttons may be used to input a 250ms (milliseconds) delay into command sequence. Each successive press of M1, M2, or M3 will result in a 250ms delay. Each user defined delay counts as 1 keystroke of 15 maximum.

   • Press the CLEAR button for 3 seconds at any time to exit the programming mode (*EXIT SETUP* appears and the remote will return to its normal operation).

   • You can use CLEAR and OK as macro keys – that's why you have to hold the CLEAR button for 3 seconds to exit macro mode.

   • If about 30 seconds passes before a button is pressed, the remote's display window will stop transmission to conserve battery life. If this occurs, restart from step 1.

How to use the discrete feature *(DISCRETE ADD)*

A discrete IR code is a non-toggle code — the separate IR command for an option instead of just one command. It is an advanced feature that is probably of interest to people who have home automation systems or people who want to put the TV into a known state. The first 10 codes operate your LCOS TV. The remaining 16 codes only work with RCA, GE, and Proscan components.

How to use Discrete Add

1. Press and hold ⬭ (the backlight button) until *CODE SET* appears in the remote's display.

2. Step through the programming menu by pressing the down arrow button until *DISCRETE ADD* appears in the remote's display, then press the OK button.

3. Press the arrow down button until the discrete code you want to add appears in the remote's display:

    LCOS discrete codes: *TV OFF, TV ON, DIRECTV ON, DIRECTV OFF, NORMAL, FULL, FILL, ANTENNA A, ANTENNA B, ALT AUDIO.*

    RCA, GE, Proscan component codes: *VCR1 OFF, VCR1 ON, VCR2 OFF, VCR2 ON, DVD OFF, DVD ON, AUDIO OFF, AUDIO ON, CD ON, CD OFF, CD-R OFF, CD-R ON, TAPE OFF, TAPE ON, SAT2 ON, SAT2 OFF.*

    Press the OK button (*TO MODE* appears).

4. Press the button that corresponds to the mode you want the remote to be in (for example, if you selected DVD OFF in step 3, press the DVD button). *SEL KEY* appears in the remote's display.

5. Press the button (or key) you want to use to add the discrete code.

    Note: All buttons are available for Discrete IR except ⬭ (the backlight button), M1, M2, M3, and the component buttons (DIRECTV, VCR1, VCR2, AUD, AUX, DVD, TV).

6. *SUCCESS* appears in the display followed by the discrete code you added in step 3.

7. To exit Discrete Add, press and hold the CLEAR button until *EXIT SETUP* appears in the display.
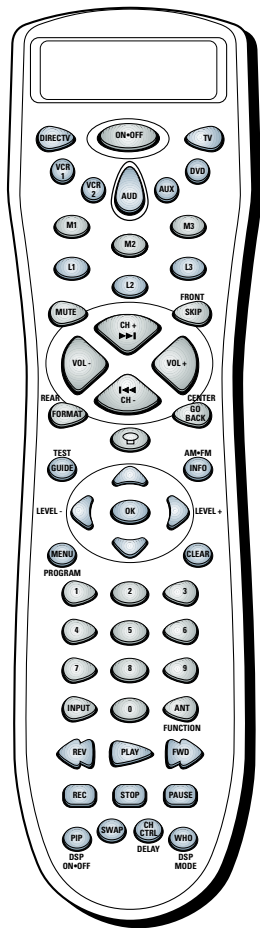
Discrete Clear

Use the following steps to delete a discrete code that you added.

1. Press and hold ⊙ (the backlight button) until *CODE SET* appears in the remote's display.

2. Step through the programming menu by pressing the down arrow button until *DISCRETE CLEAR* appears in the remote's display, then press the OK button.

3. Press mode button (also known as a component button) of the discrete code that you want to clear.

4. Press the button assigned to the discrete code you want to delete (*DELETED* appears).

5. To exit, press and hold the CLEAR button until *EXIT SETUP* appears in the display.

How to Use the Mode Mapping Feature

The Mode Mapping feature allows you to custom map one component to another component button. Mode Mapping is another way to program the remote control to operate another component.

1. Press and hold ⊙ (the backlight button) until *CODE SET* appears in the remote's display.

2. Step through the programming menu by pressing the down arrow button until *MODE MAP* appears in the remote's display, then press the OK button.

3. *FROM MODE* appears in the remote's display prompting you to select a component button.

4. Press the component button of your choice to apply the component to be selected as desired.

5. Once you have selected the *FROM MODE* component, the display message prompts you to enter the *TO MODE* component. Push the desired component button.

6. When a valid *TO MODE* component is entered, the remote automatically processes the mode reassignment and *SUCCESS* appears. The remote will then *EXIT SETUP* and return to normal operation.

   NOTES:

   • Press the CLEAR button at any time to exit the programming mode (*EXIT SETUP* appears and the remote return to normal operation).

   • If any button other than a valid component button is entered, *INVALID* appears and the remote will remain in this *FROM MODE* or *TO MODE* programming mode until a valid component is entered.

   • If about 30 seconds passes before a button is pressed, the remote's display window will stop transmission to conserve battery life. If this occurs, restart from step 1.

How to Set the Clock

1. Press and hold ⊝ (the backlight button) until *CODE SET* appears in the remote's display.

2. Step through the programming menu by pressing the down arrow button until *CLOCK SET* appears in the remote's display, then press the OK button.

3. After you press the OK button, the remote will display the hours and minutes.

4. Use the up arrow button to modify the hours and the down arrow button to modify the minutes.

   NOTE: To set the AM or PM appropriately use the up arrow button and step through the hours for the correct setting.

5. Once the time is set correctly, press the OK button to complete the setup (*SUCCESS* followed by *EXIT SETUP* appears).
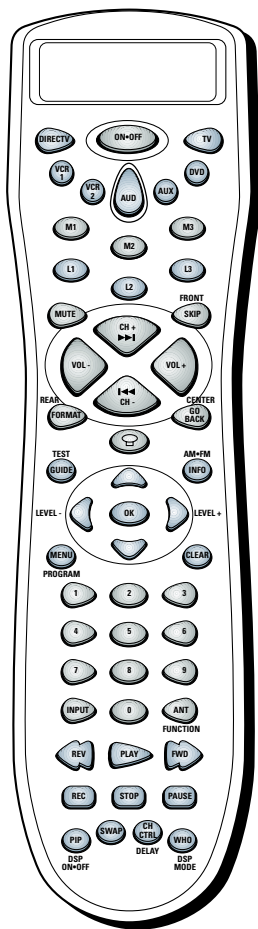
How to Reset the Remote

Operations Reset

Operations reset clears all programming from the remote control EXCEPT the buttons you've programmed to operate other components.

1. Press and hold ⊙ (the backlight button) until *CODE SET* appears in the remote's display.

2. Step through the programming menu by pressing the down arrow button until *OPS REST* appears in the remote's display, then press the OK button.

3. Once you press the OK button, *CLR SETUP* appears until the OK button is pressed again.

4. After the OK button has been pressed, the remote will perform a complete Operations Reset. Once the Operations Reset is complete the remote will exit the Operations Reset mode and return to its normal operation.

   Note: Press the CLEAR button at any time to exit. *EXIT SETUP* will appear and the remote will return to its normal operation.

Manufacturing Reset

The Manufacturing Reset returns your remote to the way it was when it was packed with product at the manufacturing facility. All programming will be cleared.

1. Press and hold ⊙ (the backlight button) until *CODE SET* appears in the remote's display.

2. Immediately press and release the RECORD button. The remote automatically enters the programming mode where the Manufacturing Reset will be accessed.

3. Step through the programming menu by pressing the down arrow button until *MFR RESET* appears in the remote's display, then press the OK button.

4.   Once you press the OK button, *CONFIRM* appears in the remote's display window. Press OK.

5.   After you press the OK button (the remote is returned to factory settings).

Note:

Press the CLEAR button at any time to exit the programming mode. An *EXIT SETUP* message will appear and the remote will return to its normal operation.

How to Operate Audio Functions

The operation of your audio product may vary. These instructions are provided for example only. Please consult the manual that was packed with your audio product.

How to turn on the receiver or minisystem

Point the remote control at the receiver and press the AUD button. The receiver should turn on. In some cases, it may require pressing the AUD button and then the ON•OFF button to turn on the system.

Selecting the receiver's components

For most RCA audio/video receivers, the component input is selected by pressing the corresponding component button. When the AUD button is programmed to non-RCA receivers, the number buttons might select the component input (1 = CD; 2 = Tape; 3 = Tuner; 4 = TV; 5 = VID1; 6 = VID2).

Operating A CD Player Or Tape Deck

Use the PLAY, REV, FWD, REC, STOP & PAUSE buttons for CD player and tape decks. In some cases, the Preset buttons (CH + and CH -) might work in changing tracks on your CD player. It might be necessary to program a component button to your CD or tape player.

Display window

AUD (audio) button

The backlight button

PLAY, REV, REC, STOP, PAUSE buttons

Display window

AUD (audio) button
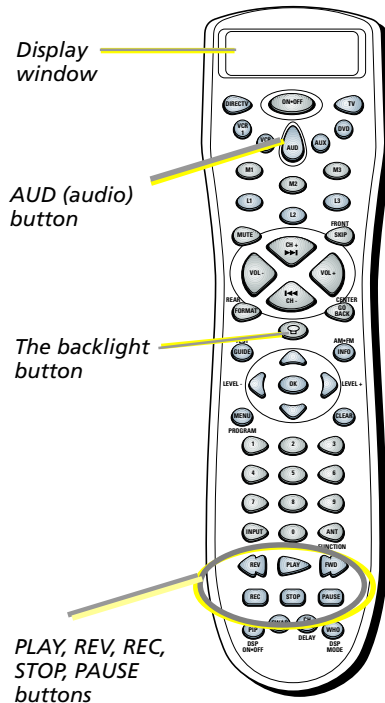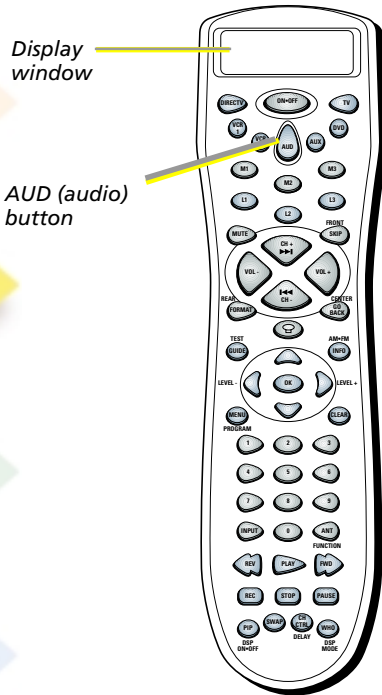
Operating The AM•FM Tuner

1. Press the AUD button.

2. Press the AM•FM button to switch between AM and FM.

3. Use the CH+ or CH- buttons to move up and down channel presets.

4. In some cases, you can enter the preset directly via the digit buttons.

Operating A Home Theatre Surround Sound System

With RCA receivers, a second press of the TV button should turn the receiver on.

1. Turn the TV on.

2. Press the AUD button.

3. Press the VOL+ or VOL- buttons to control the volume.

    NOTE: The volume buttons may operate both TV and receiver volume at the same time. If this presents a problem, you can disable the TV's speakers via the TV's menu system (go to page 111 for instructions).

Controlling The Surround Sound Features
The Surround Sound features may be turned ON/OFF by pressing the DSP ON•OFF button.

• Press the DSP MODE button until the desired mode is found.

• Press the DELAY+ or DELAY- to achieve the desired delay effect.

• Press the DSP ON•OFF button to turn DSP (Digital Signal Processor) ON or OFF.

• Press the DSP button until the desired effect is achieved.

• Press the TEST button to listen to speaker levels.

• Press FRONT, CENTER or REAR buttons to select speakers.

• Press LEVEL+ or LEVEL- buttons to adjust speaker levels.

Note: This remote does not work all brands of audio equipment. See pages 62-64 for the audio code and brand lists to operate your brand of equipment. You may need to experiment with your system since manufacturers products do not all work the same way.

Where to go for help

The troubleshooting section lists solutions to problems. Troubleshooting for your remote control is on page 134.

Code List

Amplifier Codes

Aiwa 0423
Carver 0286
Curtis Mathes 0317
Denon 0177
GE 0095
Harman/Kardon 0909
JVC 0348
Linn 0286
Magnavox 0286
Marantz 0286, 0338
Nakamichi 0338
Optimus 0317, 0412
Panasonic 0325
Philips 0286, 0909
Pioneer 0030, 0317
Polk Audio 0286, 0909
RCA 0317
Realistic 0412
Sansui 0338
Sony 0237, 0706
Soundesign 0095
Technics 0325
Victor 0348
Wards 0030, 0095
Yamaha 0371

Cable Box Codes

ABC 0018, 0020, 0024, 0025, 0028, 0030, 0031, 0034
Allegro 0170, 0332
Americast 0916
Antronix 0039
Archer 0039, 0170, 0814
Belcor 0073
Bell & Howell 0031
Bell South 0916
Cable Star 0073
Cabletenna 0039
Cableview 0039
Century 0170
Citizen 0170, 0332
Colour Voice 0042
Comtronics 0057
Contec 0036
Eastern 0019

Emerson 0814
Everquest 0032, 0057
Focus 0417
GC Electronics 0073
Garrard 0170
Gemini 0032, 0814
General Instrument 0028, 0293, 0493, 0827
GoldStar 0057, 0161
Goodmind 0814
Hamlin 0026, 0037, 0051, 0276
Hitachi 0028
Hytex 0024
Jasco 0032, 0170, 0332
Jerrold 0020, 0028, 0029, 0031, 0032, 0293, 0493, 0827
Memorex 0017
Movie Time 0080
NSC 0080
Oak 0024, 0036
Optimus 0038
Panasonic 0017, 0038, 0124
Paragon 0017
Philips 0042, 0170
Pioneer 0161, 0550, 0894
Popular Mechanics 0417
Pulsar 0017
Quasar 0017
RCA 0038, 0504
Radio Shack 0032, 0332, 0814, 0900
Recoton 0417
Regal 0037, 0276
Regency 0019
Rembrandt 0028
Runco 0017
SL Marx 0057
Samsung 0057, 0161
Scientific Atlanta 0025, 0034, 0494, 0894
Signal 0032, 0057
Signature 0028
Sprucer 0038
Starcom 0020, 0032
Stargate 0032, 0057, 0814
Starquest 0032
Sylvania 0018
TV86 0080
Tandy 0275
Teleview 0057
Texscan 0018
Tocom 0029, 0030
Toshiba 0017
Tusa 0032
Unika 0039, 0170
United Artists 0024
Universal 0039, 0073, 0170, 0208
Viewstar 0080, 0275

Zenith 0017, 0542, 0916
Zentek 0417

CD Player Codes

Burmester 0437
California Audio Labs 0046, 0320
Carver 0174, 0196, 0454
DKK 0017
Denon 0020, 0890
Emerson 0172, 0181, 0322
Fisher 0191, 0196
GE 0026
Garrard 0410, 0437
Genexxa 0049, 0181, 0322
Harman/Kardon 0174, 0190
Hitachi 0049, 0172
JVC 0089
Kenwood 0045, 0054, 0207, 0643, 0698, 0843
Krell 0174
Kyocera 0035
LXI 0322
Linn 0174
MCS 0046
MTC 0437
Magnavox 0174, 0322
Marantz 0046, 0174, 0197
Mission 0174
NSM 0174
Nikko 0181, 0191
Onkyo 0118, 0885
Optimus 0017, 0049, 0054, 0104, 0162, 0196, 0322, 0437,
0454, 0485, 1080
Panasonic 0046, 0320, 0384
Parasound 0437
Philips 0174, 0643
Pioneer 0049, 0261, 0322, 0485, 1080
Polk Audio 0174
Proton 0174
QED 0174
Quasar 0046
RCA 0026, 0061, 0172, 0196, 0322, 0781, 0827
Realistic 0172, 0181, 0196, 0197, 0437
Rotel 0174, 0437
SAE 0174
STS 0035
Sansui 0174, 0322
Sanyo 0104, 0196
Scott 0172, 0181, 0322
Sears 0322
Sharp 0054, 0197, 0878
Sherwood 0197, 1084
Sony 0017, 0202, 0507, 0621, 0622

Soundesign 0162
Tascam 0437
Teac 0191, 0197, 0410, 0437
Technics 0046, 0320
Victor 0089
Wards 0061, 0174
Yamaha 0053, 0204, 0905
Yorx 0478

Home Automation Codes

GE 0257
One For All 0184
Radio Shack 0257
Security System 0184
Universal X10 0184
X10 0184

Digital Tape Codes

Carver 0175
Denon 0048
Harman/Kardon 0175
Magnavox 0175
Marantz 0175
Philips 0175
Sony 0110

Cassette Player Codes

Aiwa 0046, 0214
Carver 0046, 0278
Denon 0093
Fisher 0278
Harman/Kardon 0046, 0199
JVC 0261, 0290
Kenwood 0087
Magnavox 0046
Marantz 0046
Onkyo 0152, 0299
Optimus 0044, 0237
Panasonic 0246
Philips 0046
Pioneer 0044, 0116, 0237
Polk Audio 0046
RCA 0032, 0278, 0415, 0416

Sansui	0046
Sanyo	0278
Sony	0187, 0260, 0308
Technics	0246
Victor	0290
Wards	0044
Yamaha	0111, 0114

Laser Disc Player Codes

Denon	0076
Mitsubishi	0076
NAD	0076
Optimus	0076
Pioneer	0076
RCA	0090, 0145, 0368
Sony	0210, 0218

Miscellaneous Audio

Aiwa	0027, 0176
Jerrold	0476, 0537
Pioneer	0265
RCA	0073, 0265
Scientific Atlanta	0477
Sony	0027, 0176
Starcom	0476

Setup Codes for Video

Archer	0177
GC Electronics	0177
Jebsee	0177
Magnavox	0835
Philips	0835
Pioneer	1027
Rabbit	0098
Radio Shack	0177
Sharp	1027
Sony	0867
TeleCaption	0188

Phono Codes

Aiwa	0205
Carver	0205
Magnavox	0205
Marantz	0205
Philips	0205
RCA	0072

Receiver Codes

ADC	0548
Aiwa	0138, 0175, 0206, 0422, 1106, 1422
Capetronic	0548
Carver	0059, 0206, 0377, 1106, 1206
Casio	0212
Clarinette	0212
Curtis Mathes	0097
Denon	0021, 1121, 1177
Fisher	0059, 0377
GE	0666
Garrard	0480
Harman/Kardon	0127, 0206, 0908
JBL	0127
JVC	0091
Kenwood	0044, 0059, 0203, 1044, 1330, 1586
LXI	0198
Linn	0206
Lloyd's	0212
MCS	0056, 0363
Magnavox	0206, 0212, 0408, 0548, 1106, 1206
Marantz	0056, 0206, 1106, 1206
Modulaire	0212
Nakamichi	0114
Onkyo	0152
Optimus	0059, 0097, 0198, 0203, 0548, 0687, 0755, 0818,1040
Panasonic	0056, 0326, 1535
Penney	0212
Philips	0206, 0408, 1106, 1206
Pioneer	0031, 0097, 0167, 0548, 0647, 1040
Polk Audio	0206
Proscan	1271
Quasar	0056
RCA	0071, 0363, 0377, 0547, 0548, 0666, 1040, 1271
Realistic	0198, 0212
Sansui	0206, 0363, 1106
Sanyo	0818
Sharp	0203
Sherwood	0508, 0519
Sony	0175, 0491, 1075, 1175, 1275

Soundesign 0687
Sunfire 1330
Teac 0480
Technics 0056, 0326, 1325, 1326, 1535
Thorens 1206
Victor 0091
Wards 0031, 0071, 0097, 0175, 0206
Yamaha 0193, 0203, 1193
Yorx 0212
Zenith 0874

Satellite

AlphaStar 0789
Chaparral 0233
Echostar 0792, 1022
Expressvu 0792
General Instrument 0378, 0644, 0886
HTS 0792
Hitachi 0836
Hughes Network Systems 0766
JVC 0792
Jerrold 0378, 0644
Magnavox 0739, 0741
Memorex 0741
Next Level 0886
Panasonic 0718
Philips 0739, 0741, 1093
Primestar 0378, 0644
RCA 0160, 0409, 0583, 0872, 1124
Radio Shack 0886
Sony 0656
Star Choice 0886
Toshiba 0766, 0807
Uniden 0739, 0741
Zenith 0873

Television

A-Mark 0020
AOC 0020, 0036, 0047, 0202
Admiral 0110, 0480
Adventura 0063
Aiko 0109
Akai 0047
Alaron 0196
Ambassador 0194
America Action 0197
Ampro 0768
Anam 0197
Anam Nationa 0072
Archer 0020

AUDvox 0020, 0109, 0197, 0468, 0640
Baysonic 0197
Belcor 0036
Bell & Howell 0033, 0171
Bradford 0197
Brockwood 0036
Broksonic 0020, 0253, 0480
CXC 0197
Candle 0047, 0063, 0073
Carnivale 0047
Carve 0071
Celebrity 0017
Cineral 0109, 0468
Citizen 0047, 0056, 0063, 0073, 0077, 0109, 0297
Clairtone 0202
Concerto 0073
Contec 0197, 0202
Craig 0197
Crosley 0071
Crown 0056, 0197
Curtis Mathes 0033, 0047, 0056, 0064, 0068, 0071, 0073, 0077,0110,
                        0162, 0171, 0183, 0468, 0483, 0764, 1155, 1355
Daewoo 0036, 0056, 0109, 0468, 0640, 0641
Daytron 0036
Denon 0162
Dumont 0034, 0036
Dwin 0737, 0791
Electroband 0017, 0202
Emerson 0036, 0055, 0056, 0171, 0194, 0195, 0196, 0197, 0202, 0253,
              0297, 0299, 0480, 0640, 0641
Envision 0047
Fisher 0171, 0176
Fujitsu 0196, 0700
Funai 0188, 0196, 0197
Futuretech 0197
GE 0038, 0046, 0064, 0068, 0072, 0110, 0152, 0195, 0299, 0468, 0764,
        1155, 1355
Gibralter 0034, 0036, 0047
GoldStar 0036, 0047, 0073, 0195
Gradiente 0070, 0073
Grunpy 0196, 0197
Hallmark 0195
Harley Davidson 0196
Harman/Kardon 0071
Harvard 0197
Hitachi 0033, 0055, 0073, 0162, 0168
Infinity 0071
Inteq 0034
JBL 0071
JCB 0017
JVC 0070
Janeil 0063
KEC 0197

Television codes (continued)

KTV	0047, 0056, 0197, 0202, 0297
Kenwood	0036, 0047
Kloss	0063
LG	0073
LXI	0064, 0071, 0171, 0173, 0195, 0764
Logik	0033
Luxman	0073
MEI	0202
MGA	0036, 0047, 0167, 0195
MTC	0036, 0047, 0073, 0077, 0202
Magnavox	0037, 0047, 0071, 0113, 0196, 0204, 1271
Majestic	0033
Marantz	0047, 0071
Matsushita	0267
Megatron	0020, 0162, 0195
Memorex	0033, 0073, 0167, 0171, 0195, 0196, 0267, 0480
Midland	0034, 0056, 0064, 0068, 0152, 0764
Minutz	0038
Mitsubishi	0036, 0110, 0167, 0195
Motorola	0072, 0110
Multitech	0197
NAD	0173, 0183, 0195
NEC	0036, 0047, 0073
NTC	0109
Nikko	0047, 0109, 0195
Noshi	0035
Onwa	0197
Optimus	0171, 0183, 0267
Optonica	0110, 0182
Orion	0196, 0253, 0480
Panasonic	0068, 0072, 0267
Penney	0020, 0035, 0036, 0038, 0047, 0056, 0064, 0068, 0073, 0077, 0152, 0173, 0195, 0764, 1355
Philco	0036, 0037, 0047, 0071, 0113, 0162, 0480
Philips	0071
Pilot	0036, 0047, 0056
Pioneer	0055, 0183, 0696
Portland	0036, 0056, 0109
Prism	0068
Proscan	0064, 0764
Proton	0020, 0195, 0483
Pulsar	0034, 0036
Quasar	0068, 0072, 0182, 0267
RCA	0035, 0036, 0046, 0055, 0064, 0068, 0107, 0110, 0152, 0764, 1055, 1155, 1255, 1355, 1464
Radio Shack	0036, 0047, 0056, 0064, 0073, 0171, 0182, 0195, 0197, 0764
Realistic	0036, 0047, 0056, 0073, 0171, 0182, 0195, 0197
Rhapsody	0202
Runco	0034, 0047, 0620
SSS	0036, 0197
Sampo	0047, 0056
Samsung	0036, 0047, 0073, 0077, 0195

Samsux	0056
Sansei	0468
Sansui	0480
Sanyo	0171, 0176
Scimitsu	0036
Scotch	0195
Scott	0036, 0195, 0196, 0197, 0253
Sears	0064, 0071, 0073, 0171, 0173, 0176, 0188, 0195, 0196, 0764
Semivox	0197
Semp	0173
Sharp	0056, 0110, 0182, 0705
Shogun	0036
Signature	0033
Simpson	0204
Sony	0017
Soundesign	0195, 0196, 0197
Spectricon	0020
Squareview	0188
Starlite	0197
Supre-Macy	0063
Supreme	0017
Sylvania	0037, 0047, 0071, 0113
Symphonic	0188
TMK	0073, 0194, 0195
Tandy	0110
Tatung	0020, 0072
Technics	0068, 0267
Technol Ace	0196
Techwood	0020, 0068, 0073
Teknika	0033, 0036, 0056, 0071, 0073, 0077, 0109, 0167, 0196, 0197
Telefunken	0073
Toshiba	0077, 0171, 0173, 1273
Tosonic	0202
Totevision	0056
Vector Research	0047
Victor	0070
Vidikron	0071
Vidtec	0036, 0195
Viking	0063
Wards	0033, 0036, 0037, 0038, 0046, 0047, 0071, 0073, 0113, 0182, 0195, 0196
White Westinghouse	0480, 0640, 0641
Yamaha	0036, 0047
Zenith	0033, 0034, 0109, 0480, 0641
Zonda	0020

VCR Codes

Admiral 0065, 0226
Adventura 0017
Aiko 0295
Aiwa 0017, 0054, 0324
Akai 0058, 0123
America Action 0295
American High 0052
Asha 0257
AUDvox 0054
Beaumark 0257
Bell & Howell 0121
Broksonic 0019, 0138, 0201, 0226, 0496
CCE 0089, 0295
Calix 0054
Canon 0052
Capehart 0037
Carver 0098
Cineral 0295
Citizen 0054, 0295
Colt 0089
Craig 0054, 0064, 0089, 0257, 0288
Curtis Mathes 0052, 0058, 0077, 0179, 0777
Cybernex 0257
Daewoo 0037, 0062, 0295, 0578
Daytron 0037
Denon 0059
Dynatech 0017
Electrohome 0054
Electrophonic 0054
Emerex0049 ....
Emerson 0017, 0019, 0054, 0060, 0138, 0201, 0226, 0295,
0496, 0578
Fisher 0064, 0121
Fuji 0050, 0052
Funai 0017
GE 0052, 0065, 0077, 0082, 0219, 0257, 0777, 0778
Garrard 0017
Go Video 0449, 0543
GoldStar 0054, 0055
Gradiente 0017
HI-Q 0064
Harley Davidson 0017
Harman/Kardon 0055, 0098
Harwood 0089
Headquarter 0063
Hitachi 0017, 0058, 0059, 0082, 0122
Hughes Network Systems 0059
JVC 0058, 0084
Jensen 0058
KEC 0054, 0295

KLH 0089
Kenwood 0055, 0058, 0084
Kodak 0052, 0054
LXI 0054
Lloyd's 0017
Logik 0089
MEI 0052
MGA 0060, 0257
MGN Technology 0257
MTC 0017, 0257
Magnasonic 0295
Magnavox 0017, 0052, 0056, 0098, 0166
Magnin 0257
Marantz 0052, 0098
Marta 0054
Matsushita 0052, 0179
Memorex 0017, 0052, 0054, 0056, 0063, 0064, 0065, 0121,
0179, 0226, 0257, 0324, 0496, 1054, 1179, 1279
Minolta 0059, 0122
Mitsubishi 0060, 0065, 0084
Motorola 0052, 0065
Multitech 0017, 0089
NEC 0055, 0058, 0084, 0121
Nikko 0054
Noblex 0257
Olympus 0052
Optimus 0054, 0065, 0121, 0179, 0449, 1065, 1079, 1179,
1279
Orion 0019, 0201, 0226, 0496
Panasonic 0052, 0094, 0179, 0242, 0633, 1079, 1179, 1279
Penney 0052, 0054, 0055, 0059, 0257
Pentax 0059, 0082, 0122
Philco 0052, 0226, 0496
Philips 0052, 0098, 0635, 1098, 1198
Pilot 0054
Pioneer 0084
Polk Audio 0098
Portland 0037
Profitronic 0257
Proscan 0077, 0219, 0777, 0778
Protec 0089
Pulsar 0056
Quarter 0063
Quartz 0063
Quasar 0052, 0094, 0179, 1179
RCA 0052, 0059, 0065, 0077, 0082, 0094, 0122, 0123,
0166, 0219, 0257, 0294, 0470, 0777, 0778
Radio Shack 0017, 1054
Radix 0054
Randex 0054
Realistic 0017, 0052, 0054, 0063, 0064, 0065, 0121

VCR Codes

ReplayTV 0631, 0633
Runco 0056
STS 0059
Samsung 0062, 0257
Sanky 0056, 0065
Sansui 0017, 0058, 0084, 0226, 0288, 0496
Sanyo 0063, 0064, 0121, 0257
Scott 0060, 0062, 0138, 0201
Sears 0017, 0052, 0054, 0059, 0063, 0064, 0121, 0122
Semp 0062
Sharp 0065
Shintom 0089
Shogun 0257
Singer 0089
Sony 0017, 0049, 0050, 0052, 1049
Sylvania 0017, 0052, 0060, 0098
Symphonic 0017
TMK 0257
Tatung 0058
Teac 0017, 0058
Technics 0052, 0179
Teknika 0017, 0052, 0054
Thomas 0017
Tivo 0635
Toshiba 0060, 0062
Totevision 0054, 0257
Unitech 0257
Vector 0062
Vector Research 0055
Video Concepts 0062
Videosonic 0257
Wards 0017, 0052, 0059, 0064, 0065, 0077, 0089, 0098,
0166, 0257, 0777
White Westinghouse 0089, 0226, 0295
XR-1000 .... 0017, 0052, 0089
Yamaha 0055
Zenith 0017, 0050, 0056, 0226, 0496

DVD Player Codes

Aiwa 0658
Apex 0689
B & K 0672, 0679
Denon 0507, 0651
Fisher 0687
GE 0539
Harman/Kardon 0599
Hitachi 0681
Hiteker 0689
JVC 0575, 0640
Kenwood 0551, 0699
Magnavox 0520, 0692
Marantz 0556
Mitsubishi 0538
Onkyo 0520, 0644
Optimus 0588
Panasonic 0507, 0649
Philips 0520, 0556
Pioneer 0542, 0588, 0649
Proscan 0539
RCA 0539
Samsung 0590
Sharp 0647
Sherwood 0650
Sony 0550
Technics 0507
Theta Digital 0588
Toshiba 0520
Yamaha 0507, 0562
Zenith 0520, 0608

LCOS ILLUMINATED

Overview:

- Everything you ever wanted to know about the channel banner — page 70

- Changing between DIRECTV and TV mode — page 72

- Changing the channel — page 73

- Use the INPUT button to see what's playing on the components connected to your TV — page 74

RCA SCENIUM

Graphics are for representational purposes.

Channel logo, when available

Program title, start and end time, rating, current audio language, and audio mode availability

Indicates incoming signal aspect ratio and the screen format applied to that signal

Motorcycle Racing
2:30pm to 4:30pm   4:3 Full   Antenna A
NR-Not Rated   Wed 2/6/01   2:37pm
English (Dolby Digital)   Family

Ch 208

Current antenna (TV mode only)

Current date and time

"Family" is one of 5 profiles

Channel number of the main picture

Searches titles of all DIRECTV® programming guides for specific information

Sorts titles of the current DIRECTV programming guide for specific information

Takes you to the Main menu

Toggles between TV mode and DIRECTV mode

Mail from DIRECTV

Locks and unlocks the system or the video

Cycles through the audio language choices

Everything You Ever Wanted to Know About the Channel Banner

The channel banner appears whenever you tune to a channel or press INFO on the remote control. If you press INFO when the banner is on the screen, additional information appears (when available).

To choose an icon, press the arrow buttons on the remote to highlight the icon and press OK to select it.

Note: the appearance of some icons changes to indicate the item's status or availability.

Channel Banner Icons

Main menu icon   Takes you to the main menu.

TV/DIRECTV logo   Toggles between TV and DIRECTV viewing. The highlighted part of the icon indicates the current viewing state.

Green unlock icon   The system is unlocked. Spending, viewing and other limits can be accessed and changed. To lock the system, highlight the icon and press OK.

Yellow unlock icon   The system password has been entered to override profile limits. No limits can be accessed or changed. To lock the system, highlight the icon and press OK.

Red lock icon   Indicates that no limits can be accessed or changed. The system password is required to override limits or access the system.

Audio language/SAP icon   If the icon appears highlighted while watching a digital (ATSC) or DIRECTV® channel, two or more audio languages are available. To repeatedly scroll through the options and play them, highlight the icon and keep pressing the OK button.

If the icon is highlighted when watching an analog (NTSC) TV channel, a Second Audio Program (SAP) is available. To play the SAP for the current channel, highlight the icon and press OK.

Highlighted mail icon   You have a new message in your mailbox from your DIRECTV® programming provider. Only available in DIRECTV mode.

AlphaSort™ (A-Z) icon   Sorts currently-listed program titles alphabetically. Only available in DIRECTV mode.

Highlighted Scout™ (binoculars) icon   A program that meets your criteria has been found. To see the Scout™ feature's results or to set up a Scout search, highlight the icon and press OK. Only available in DIRECTV mode.

TV mode channel entry
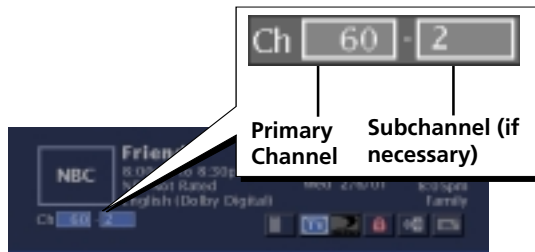
Primary Channel | Subchannel (if necessary)

Right arrow button

DIRECTV mode channel entry

OK button

Changing Between DIRECTV and TV Mode

When you press the number buttons on your remote control to change channels, your TV tunes to programming from one of 4 sources:

- the DIRECTV satellite (if you have DIRECTV service) — DIRECTV mode
- a terrestrial off-air antenna — TV mode
- cable TV — TV mode
- video input channel (external components connected to the TV's Input Jacks) — TV mode (explained on page 74)

You tune to one of these sources by pressing either TV or DIRECTV on the remote control; then you can enter the channel numbers (explained in detail on the next page).

In **TV mode**, you tune to channels that carry the terrestrial off-air or cable TV signal.

- To tune to an analog channel, enter channel numbers that are up to three digits long. Press OK to tune.

- To tune to a digital channel, enter channel numbers that are one, two, or three digits long. If necessary, press the right arrow and enter a subchannel number. These subchannel numbers appear in the box to the right of the primary channel number. Press OK to tune.

In **DIRECTV mode**, you tune to channels that come from the DIRECTV satellite signal (if you subscribe to DIRECTV® programming). Enter the channel numbers (1 to 4 digits long) and press OK (explained in more detail on the next page).

TV button

Subchannel entry box

Highlighted to indicate TV mode

Primary channel entry box

DIRECTV button

Channel entry box *Highlighted to indicate DIRECTV mode*
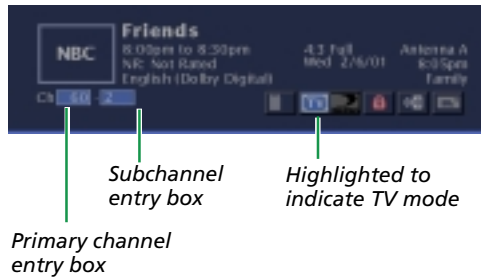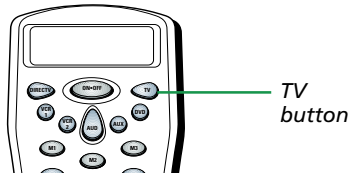
Changing the channel

To change channels by entering numbers with the remote control, the remote needs to be in the correct "mode" either DIRECTV mode (if you subscribe to DIRECTV® programming) or TV mode.

When you want to watch a digital or analog TV channel, put the remote in TV mode

If you want to watch a digital channel:

1. Press TV on the remote (to put it in TV mode).

2. Enter the primary channel number (this number appears in the primary channel entry box). If there isn't a subchannel, press OK.

3. If the primary channel number has fewer than three digits and you want to enter subchannel numbers, press the right arrow button to move to the subchannel entry box.

4. Enter the subchannel number (the number appears in the subchannel entry box).

5. Press OK on the remote control to tune to the channel.

If you want to watch an analog channel:

1. Press TV on the remote control (to put it in TV mode).

2. Enter the channel number (the number appears in the primary channel entry box).

    Note: analog channels don't have subchannels.

3. Press OK on the remote control to tune to the channel.
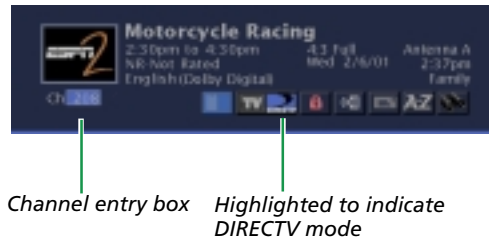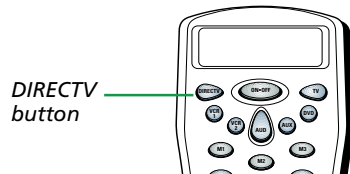
When you want to watch DIRECTV® programming, put the remote in DIRECTV mode

1. Press DIRECTV on the remote (to put it in DIRECTV mode).

2. Enter the channel number and press OK. If you don't enter at least three digits, *"???"* appears in the channel entry box, and the system will wait for a valid entry.
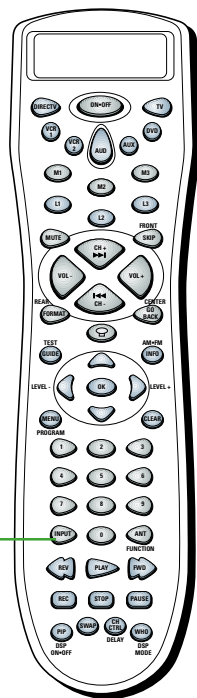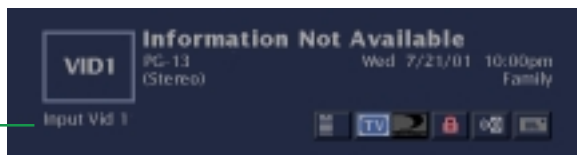
INPUT button

Input source

Watch the channel banner to see the input sources change each time you press the INPUT button on the remote.

Use the INPUT button to see what's playing on the components that are connected to your TV

The INPUT button on the remote control enables you to scroll through the available Video Input Channels (*VID1, VID2, VID3, FRNT,* and *CMPNT*) so you can see the content from the component that is connected to the corresponding Input Jack on the back of the TV.

Each time you press the INPUT button on the remote, the TV tunes to the next Video Input Channel. Press the INPUT button until you find the input that corresponds to the jacks you used to connect the component. For example: if you connected your VCR to the INPUT2 jacks on the back of your TV, you would press the INPUT on the remote until *VID2* appears in the channel banner.

There are other ways of selecting a video input channel that might be faster:

- Program the component buttons on the remote control (VCR1, VCR2, and/or DVD) to automatically tune to the correct video input channel when you press the corresponding component button. See Auto Tuning on page 115.

- After pressing INPUT on the remote, enter the digits 1, 2, 3, 4, or 5 to tune to *VID1, VID2, VID3, FRNT,* or *CMPNT* video input channels respectively.

- After pressing INPUT on the remote, press GUIDE (a list of your Input Jacks and corresponding video input channels appears). Press the arrow buttons on the remote to highlight the appropriate video input channel, and press OK to tune to that channel.

Chapter 5: Features

Chapter Overview:

Graphics are for representational purposes.

Channel control indicator

PIP channel number

Main picture channel number
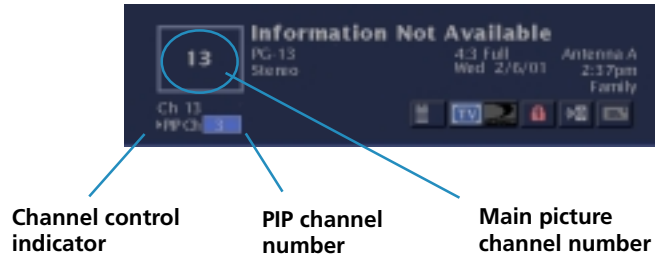
How to Use PIP (Picture-in-Picture)

Picture-In-Picture (PIP) displays a second, smaller picture on top of the main picture.

Notes:

• PIP works with analog channels only on this TV — not with DIRECTV channels or digital ATSC channels.

• PIP won't work when closed captioning is turned on or when the V-Chip is active.

While you may use PIP in different ways, this basic PIP scenario should get you started. When watching an analog channel, follow these steps.

1. Press the PIP button on the remote control (the PIP window appears on the screen).

2. To change channels in the PIP window, press the channel up and/or down buttons or the number buttons on the remote control.

3. To change the channel in the main picture window, press CH CTRL on the remote. Press channel up and/or down buttons or number buttons.

To go back and forth between controlling the PIP window and the main picture, press the CH CTRL button (the triangular icon points to the window that is active).

PIP Buttons: General Explanation

The buttons on the remote control that you'll use for the PIP feature are explained below:

PIP Press the PIP button to make the PIP window appear on the screen. Press PIP again to remove the window.

Arrow buttons (left, right, up, and down) Use these buttons to move the PIP window to different areas of the screen. You can't move the PIP window when the channel banner is on the screen.

CH CTRL (Channel Control) Switches channel control between the PIP window and the main picture. To determine whether you are controlling the picture in the PIP window or the main picture, look at the channel banner as you change channels: the triangular icon points to the channel number of the picture you're controlling.

SWAP Switches the position of the main picture and PIP picture (when you press SWAP, the picture in the PIP window appears in the main picture and the main picture appears in the PIP window).

Arrow buttons

PIP button

SWAP button

CH CTRL button
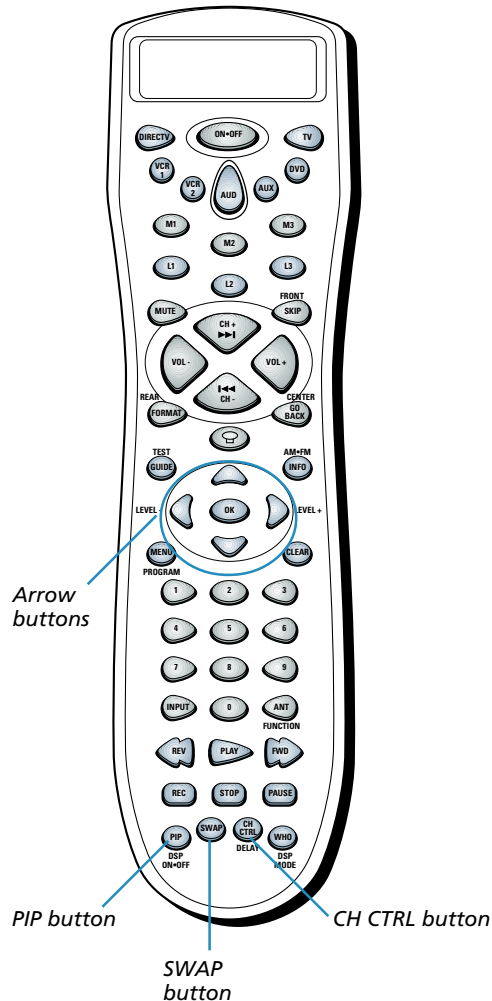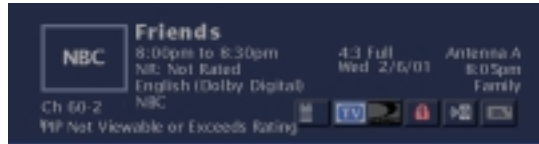
The message *PIP Not Viewable or Exceeds Rating* in the channel banner lets you know that PIP is not available on this channel and you should tune to another channel.

PIP Problems?

- If you are channel surfing and the PIP disappears, you may have tuned to a digital channel. To view PIP and the main picture, make sure that both the main and PIP channels are analog inputs, or signals. Continue changing the channel until you find an analog (NTSC format) channel. The PIP window will reappear.

- If you press PIP and the PIP box is blank (no picture), the movie or TV might be blocking the PIP channel. For information on removing limits, go to page 94.

- If the PIP window disappears when closed captioning is displayed or when you press the MUTE button on the remote control, you have a conflict in your settings. Your LCOS TV isn't able to display a PIP window when

  - closed captioning is activated

  - mute is turned on and the *Caption Display* menu is set to *On When Muted*

  - parental controls have blocked the current program

  In order to view PIP, either unlock parental controls or change the closed captioning setting.

- If you can't move the PIP window, clear the channel banner from the screen. The arrow buttons won't move the PIP window when the channel banner is on the screen.

To access the program guide, you can press the GUIDE button on the remote control or you can select *Program Guide* from the main menu.

Bringing Up the Program Guides

You have access to two program guides: a DIRECTV® programming guide and a TV programming guide (for terrestrial programming).

To access the program guides, press the GUIDE button on the remote control.

> **Notes:**
> - When you access a program guide, the guide that appears on the screen corresponds to the "mode" you are in. For example, if you are in DIRECTV mode and press the GUIDE button, the DIRECTV® programming guide appears on the screen. Similarly, if you're in TV mode and press the GUIDE button, the TV program guide appears.
> - Availability of such information may vary. Thomson is not responsible for the availability or accuracy of such information.

If you are viewing the TV program guide and would like to view the DIRECTV® programming guide, press DIRECTV on the remote control (the DIRECTV® programming guide appears).

"Family" is one of five selectable profiles
(press WHO on the remote to change)

Indicates current time
and day *

Program titles and
information, when
available

Tuesday Afternoon　　Family　　5:18 pm
Tue 4/9/01

"Apollo 13". Tom Hanks, Kevin bacon. (1995) Based on the
true story of the ill-fated 13th Apollo mission bound for the
moon. It's 1970, and there's little interest in this "routine"
flight...until that is, things go very wrong, and prospects of
a safe return fade. Directed by Ron Howard.

4/6	5:00 PM	5:30 PM	6:00 PM	6:30 PM
2	Regular Schedule			
7	Regular Schedule			
9	Regular Schedule			
10-1 CBS HD1	Apollo 13			The View
10-2 CBS HD2	TechoTalk	HD Today	USA Talk	Tim Smith

EXIT　?　　▼　　🔲　📊

Primary channel number

Subchannel number

Abbreviated
channel name,
when available

Returns you to
previous screen

Help gives you more
information about the
program guide

Provides access to other program guide
formats

Takes you to the main menu

Scrolls down through the guide

TIP: Switching to DIRECTV Guide

*When you are viewing the TV program guide,
you can press DIRECTV on the remote control
and view the DIRECTV® programming guide.*

Anatomy of the TV Program Guide

This illustration shows you the kind of information you will see in the TV program guide.

To access the TV program guide:

1. Press the TV button on the remote control (to put the remote in TV mode).

2. Press GUIDE on the remote control.

    Note: the availability of TV program titles and information is dependent upon information provided by local broadcasters.

* The wrong time appears sometimes because the data sent via the broadcast is incorrect. To prevent this, turn off the off-air guides in the *Assistance* menu (go to page 143 for instructions).
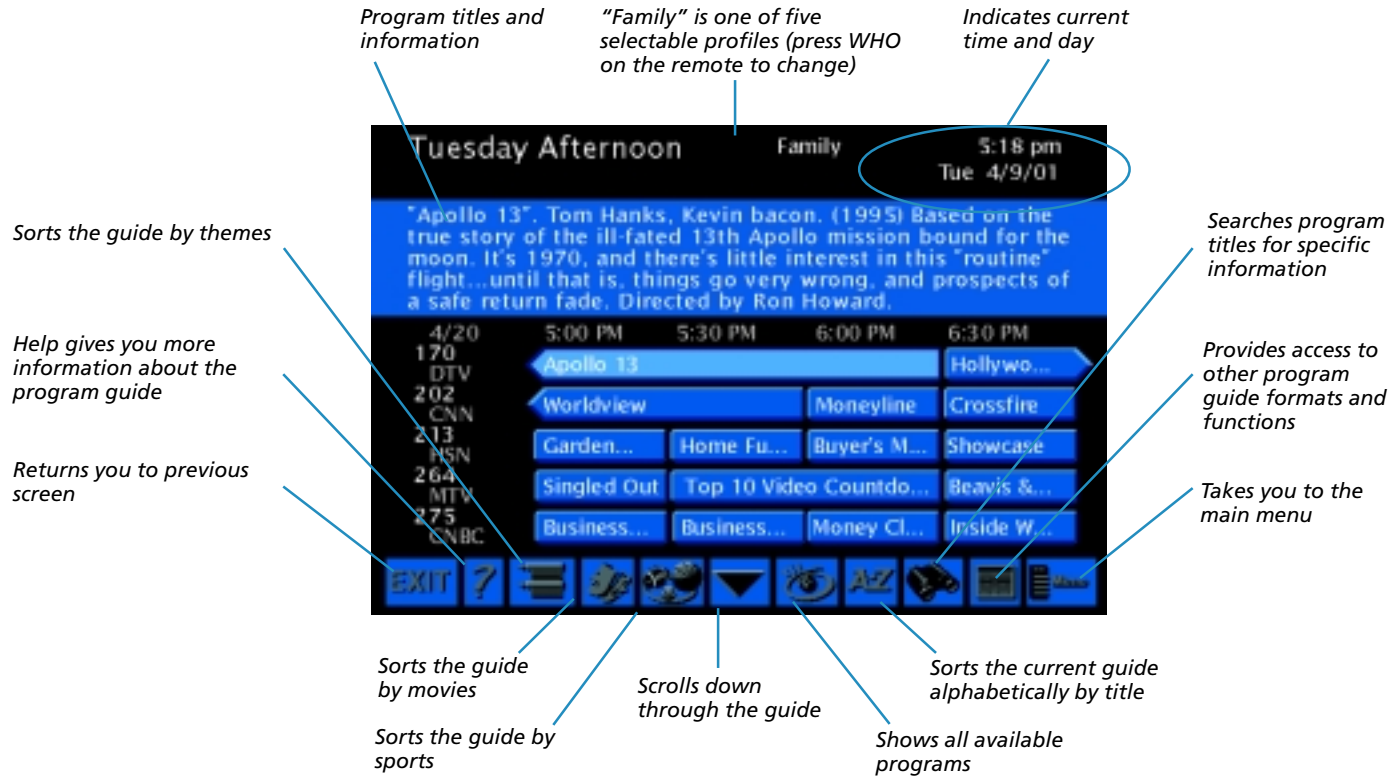
Program titles and information

"Family" is one of five selectable profiles (press WHO on the remote to change)

Indicates current time and day

Sorts the guide by themes

Searches program titles for specific information

Help gives you more information about the program guide

Provides access to other program guide formats and functions

Returns you to previous screen

Takes you to the main menu

Tuesday Afternoon   Family   5:18 pm
                                        Tue 4/9/01

"Apollo 13". Tom Hanks, Kevin bacon. (1995) Based on the true story of the ill-fated 13th Apollo mission bound for the moon. It's 1970, and there's little interest in this "routine" flight...until that is, things go very wrong, and prospects of a safe return fade. Directed by Ron Howard.

4/20	5:00 PM	5:30 PM	6:00 PM	6:30 PM
170 DTV	Apollo 13			Hollywo...
202 CNN	Worldview		Moneyline	Crossfire
213 HSN	Garden...	Home Fu...	Buyer's M...	Showcase
264 MTV	Singled Out	Top 10 Video Countdo...		Beavis &...
275 CNBC	Business...	Business...	Money Cl...	Inside W...

EXIT ? ≡ 🐟 🥗 ▼ 👁 A-Z 🕹 🎞 ≣Menu

Sorts the guide by movies

Scrolls down through the guide

Sorts the current guide alphabetically by title

Sorts the guide by sports

Shows all available programs

Anatomy of the DIRECTV® Programming Guide

The illustration shows you the kind of information you will see in the DIRECTV® programming guide.

To access the DIRECTV® programming guide:

1. Press the DIRECTV button.

2. Press GUIDE on the remote control.

Getting Around in the Guides

There are several ways to change channels and move around the TV and DIRECTV® programming guides.

• **Point to channels with the number buttons (0-9)**
You can quickly highlight any channel in the program guides by entering the channel number with the number buttons (0-9). For example, to highlight channel 228, press the numbers 2-2-8 and press OK on the remote control. To highlight channel 73, press 7-3 and OK.

• **Scroll channel by channel**
The programs that you see on the TV screen make up one section—or page—of the total program guide. You can scroll to other sections using the arrows: highlight other times with the left and right arrows; highlight other channels with the up and down arrows.

• **Scroll page by page**
If you want to scroll up or down through the program guides faster, press the channel up and down buttons on the remote control. The highlight scrolls a page at a time.

Note: To view a listing of future programming in the guide, continuously press the right arrow button on the remote control to scroll to the right.

Tuning to a Program

• To tune directly to a current program listed in a guide, highlight the program name and press OK.

• To see information about a program or channel in the guide, highlight the program or channel name and press INFO.

Then, if the program is not a Pay Per View (PPV) program, your options are the following:

• *View Channel* to tune to that channel

• *Channel Guide* to see a program lineup for that channel

• *Other Times* to see what other times the program is available

The options available to you may vary according to the type of program you select. If the program is PPV, you will have the option to buy the program.
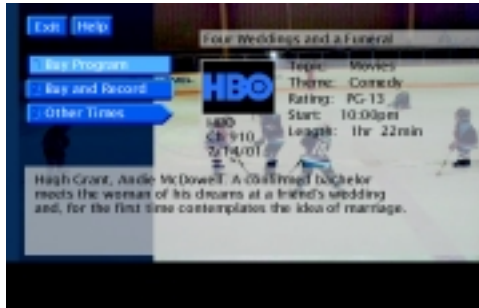
After you highlight a program name and press INFO, the *Program Details* screen appears and gives you several options.

GUIDE button

MENU button

OK button

CLEAR button
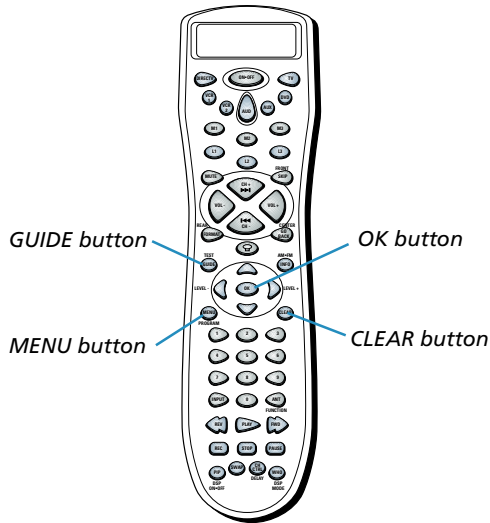
Using the GUIDE Button

Each time you press the GUIDE button on the remote control, a different type of TV or DIRECTV® programming guide appears: Detail Guide, SurfGuide™ (DIRECTV only), or Grid Guide.

By default, the Detail Guide appears when you press GUIDE on the remote control. You can change the default guide from the Detail Guide to the Grid Guide or the SurfGuide feature (DIRECTV only) using the following steps:

1. Press MENU on the remote control and highlight *Preferences*. Press OK.

2. Highlight *Default Guide*, and press OK.

3. Press the arrow buttons to highlight the type of guide you want to appear first whenever you press the GUIDE button. Press OK to select it.

4. Press CLEAR to remove the menu from the screen.

   Note: If the SurfGuide is selected as the default guide, the Grid Guide will appear when you access the TV program guide since the SurfGuide feature isn't available as a TV program guide.

The Detail Guide

The Detail Guide shows five channels in a time-and-channel format, with program information for the highlighted program (if available) at the top of the guide.

The SurfGuide™ (DIRECTV only)

The SurfGuide feature displays seven DIRECTV® channels in a half-hour time-and-channel format, if you subscribe to DIRECTV® programming. The full name of the program and its rating are listed at the bottom of the screen. Press the right arrow button to extend the SurfGuide to show two hours of programming.

The Grid Guide

The Grid Guide shows seven channels in a time-and-channel format, with the full title of the highlighted program at the top of the guide.

The Other Guides Icon

The *Other Guides* icon at the bottom of the TV and DIRECTV® programming guides lets you sort the guides by different variables, such as by channels, data, channel lists, and channel groups. You can access these guides by highlighting them selecting the *Other Guides* icon at the bottom of the Detail Guide and Grid Guide.
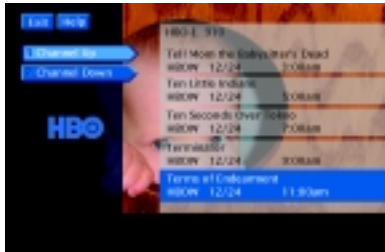
Channel Guide

Guide Data

Attractions Guide

- **Channel Guide**   Displays a channel's DIRECTV® or TV programming schedule in a channel-by-channel format. You may also directly enter channel numbers and press OK to go to another channel's listing.

- **SurfGuide**™ (available with DIRECTV only)   Displays seven DIRECTV® channels in a half-hour time-and-channel format, if you subscribe to DIRECTV® programming. The full name of the program and its rating are listed at the bottom of the screen. Press the right arrow button to extend the SurfGuide to show two hours of programming.

- **Guide Data**   Shows you the future guides that are available and lets you select one to view in either the TV or DIRECTV® programming guide.

- **Channel Lists**   Displays a list of profiles. You can choose a profile from this list and the guide will display only the DIRECTV® or TV channels which have been included in that profile's channel list. You can also access profiles by pressing WHO on the remote when in the program guide.

- **Channel Groups**   Lets you sort only the DIRECTV® programming guide to include only channels that fall into the selected category. For example, you could sort the DIRECTV® programming guide to show only Pay Per View movies that are available at a future time.

- **Attractions...**   Displays a list of DIRECTV® channels that show coming attractions and special events information.

Exiting A Program Guide

There are four ways to exit a guide:

- Highlight a channel and press OK.
- Highlight *Exit* and press OK.
- Press CLEAR on the remote control.
- Press GO BACK on the remote control.

Sorting icons

Sorting the DIRECTV® Programming Guide

Sorting the guide is a way of organizing the DIRECTV® programming guide to show only the types of programs that interest you. There are several on-screen icons that sort the DIRECTV guide in different ways.

Sorting the DIRECTV® Programming Guide by Topics

The topics icon sorts the DIRECTV® programming guide according to the current user's preferences. Highlight the topics icon and press OK (the icon changes to the topics themes icon).

Select the topics themes icon to edit the current user's themes preferences. These preferences are saved in each user's profile.

Select the topic categories, and checkmark the themes you would like to appear when you select the topics icon in the guides. Programming that fits the description of checkmarked themes will appear in the DIRECTV® programming guide when you sort by the topics icon.

Sorting the DIRECTV® Programming Guide by Movies

Select the movies icon to tell the DIRECTV® programming guide to list only DIRECTV movies. After you select the movies icon, it changes to a movies themes icon.

Select the movies themes icon to sort the guide to list movies by type, such as comedies or musicals.

Sorting the DIRECTV® Programming Guide by Sports

Select the sports icon to tell the DIRECTV® programming guide to list only DIRECTV® sporting events. After you select the sports icon, it changes to the sports themes icon.

Select the sports themes icon to sort the guide to list sports by type, such as basketball or hockey.

Listing All DIRECTV® Programming

The all icon resets the DIRECTV® programming guide to show all available topics, channels and listings for the current profile.
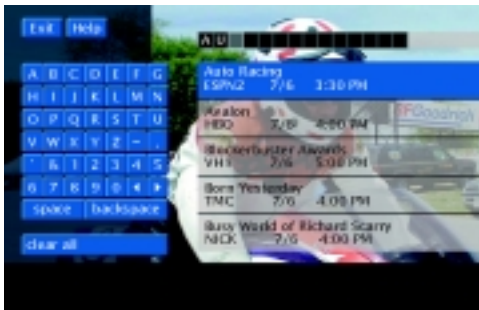
Sorting the Current DIRECTV® Programming Guide Alphabetically

The AlphaSort™ feature lists all the program titles in the current DIRECTV® programming guide in alphabetical order. You can also find this icon in the channel banner. Select the AlphaSort icon to search for specific program titles that are in the current guide. After listing programs whose first letter or number match your entry, AlphaSort lists programs in the current DIRECTV® programming guide that have your entry anywhere in the title.

In the AlphaSort menu, use the arrow buttons on your remote control to highlight a character, then press OK.

For example, to search for the program Auto Racing, the first letter you should highlight and select is "A." (Words like "The", "A", and "An" appear at the end of a title.) All titles that begin with "A" appear in the AlphaSort list. Next, enter the letter "U". All titles beginning with "AU" appear in the list. Programs that contain "AU" anywhere in their titles will appear at the end of the list.

Chapter 5 ▶ Features

Finding DIRECTV Programs Using Scout™

The Scout icon at the bottom of the DIRECTV® programming guide lets you assign "Scouts" to search all DIRECTV® programming guides (both current and future) for very specific program title information.

To use the Scout feature:
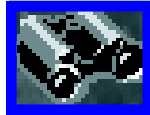
1. Highlight the Scout icon in the program guide and select it.

2. Highlight one of the Scout 1-8 menu items from the next screen and press OK. If you're setting up a new Scout, make sure to select a Scout menu item **without** a check beside it, since the check means you've already set up that Scout.

3. Select *Enter Text* to set up the information the Scout feature will look for in all program guide titles.

4. Use the on-screen keyboard to enter the desired search parameters. For example, if you are interested in tennis events, enter a common term you might see in program titles, like "tennis."

5. Select *Run Scout*. The Scout feature will search for information in all DIRECTV® programming guide titles.
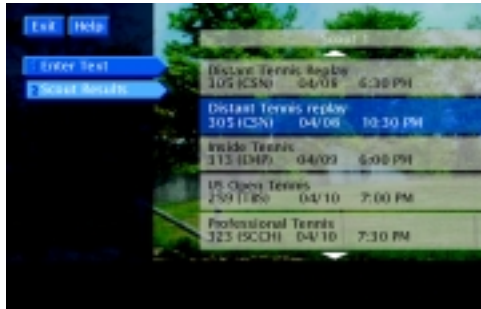
6. Check the Scout search's results by selecting the Scout icon from the program guide or channel banner, then selecting the Scout menu item that has the binoculars icon next to it.

7. Select *Scout Results*. If the characters you entered appear anywhere within a program title, the program will be included in the Scout Results program list. If no match is found, check again after the receiver has been off for approximately 30 minutes.

The Other Icons

These icons are located on both the DIRECTV and TV program guides.

Exit
Exits the guide and returns you to the place you were before you entered the program guides.

Help
Brings up additional information about the guide. Press OK to continue.

Down Arrow
The arrow icon allows you to scroll down through other channels in the guide. Highlight the down arrow, and then press either OK or the down arrow on the remote to scroll down through the program guide.

The Main Menu
Brings up the main menu. Press OK to continue.

About Profiles

When you select *Profiles* from the main menu, you can create four personalized profiles in addition to the default "Family" profile. You can set up specific channels, rating limits, and spending limits for each profile. After you've set up these profiles, exit the menu system. Then, press the WHO button on the remote control to scroll through your profiles and press OK to access a certain one.

But first, personalize a profile by entering a name.

1. Select *Profiles* from the main menu.

2. Select a profile to edit: *User 1*, *User 2*, *User 3*, or *User 4*.

3. Select *Edit User Name* from the next menu.

4. Use the up, down, and right arrow buttons on the remote control to a find a letter. Press OK to enter the letter (the icon moves to the next space).

To continue editing the profile, select *DIRECTV Setup* (if you have ordered DIRECTV® programming) or *TV Setup*. The following sections describe how to set up these features.

Profiles: The DIRECTV Setup

The DIRECTV Setup menu item is only accessible if you subscribe to DIRECTV® programming. Through this menu you can establish DIRECTV channel lists, set spending limits, and set rating limits for DIRECTV® programs.

Editing Channels in a DIRECTV List

You should create a DIRECTV channel list to establish which DIRECTV channels the selected profile can access. To create the DIRECTV channel list:

1. Highlight and select a user name, then select *DIRECTV Setup*.

2. Highlight *Edit Channels* and press OK.

3. Use the arrow buttons to highlight a DIRECTV channel, and press OK to remove (or replace) the check mark. To go directly to a certain channel, enter its number using the digits on the remote control. Or, page through the list using the channel up and down buttons.

Checkmarked items appear in the DIRECTV channel list. In other words, when you select that profile and begin surfing through DIRECTV channels with the channel up and down buttons, only the checkmarked channels will appear as you surf.

Selecting or deleting all DIRECTV Channels in a channel list

You might be able to save time when creating a DIRECTV channel list by using the *Select All Chans* option or the *Delete All Chans* option to either add or delete all channels before removing or adding individual channels.

Also, DIRECTV program providers may make additional channels available. To prevent new channels from appearing in a profile channel list, choose *Delete All Chans* and checkmark only the channels you want to appear in the list.

Chapter 5 ▶ Features

Tip: Accessing Spending Limits

You can also set limits for all users at one location instead of accessing each profile individually by: choosing System Options from the main menu, choosing Purchases, choosing Spending Limit, and entering the limit.

Important!

You need to lock the system in order for rating limits, channel limits, and spending limits to go into effect.

To edit the limits after you lock the system, you need to enter the system password, go to page 102
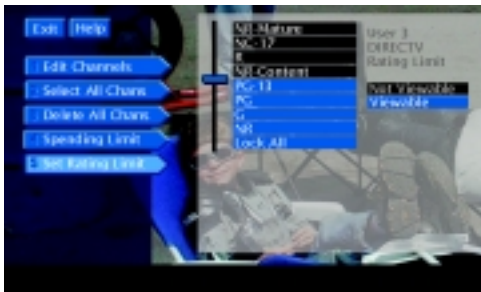
Setting the DIRECTV Spending Limit

Use the *Spending Limit* option to indicate a profile's per-event spending limit for Pay Per View (PPV) programs. To set the spending limit, choose the user profile name, select *DIRECTV Setup*, then follow these steps:

1. Highlight *Spending Limit*, and press OK.

2. Use the digits or the arrow buttons on the remote control to enter a single-program spending limit.

3. Lock the system. For details, go to page 102.

After a spending limit is set and the system is locked, you must enter a password to purchase a Pay Per View program that costs more than your spending limit allows. The system will then temporarily unlock the limits you have set until the power is turned off. When the system is turned back on, the system will be locked again.

Setting the DIRECTV Rating Limit

The *Set Rating Limit* menu enables you to set a maximum viewing limit for rated movies (based on the Motion Pictures Association of America, MPAA, ratings system).

> Note: the rating limit can't be enforced if a program hasn't been rated, if rating information for that program isn't transmitted by the program provider, or if the system hasn't been locked.

1. Select a user.

2. Select *DIRECTV Setup*.

3. Highlight *Set Rating Limit* and press OK.

4. Use the up and down arrows to move the rating selector to the highest rating you want to be able to view. In the illustration, movies that are rated up to and including a PG-13 rating can be viewed.

After the rating limit is set and the system is locked, you must enter the system password to watch programs with a rating higher than the limit. The system will then temporarily unlock the limits you have set until the power is turned off. When the system is turned back on, the system will be locked again.

Profiles: The TV Setup

You can establish TV channel lists, set spending limits, and set rating limits for TV programs using the TV Setup menu.

Editing Channels in a TV List

You should create a TV channel list to establish which TV channels (including both analog and digital) the selected profile can access. To create the TV channel list:

1. Select a user.

2. Select *Edit Channels.*

3. Use the arrow buttons to highlight a TV channel, and press OK to remove (or replace) the check mark. To go directly to a certain channel, enter its number using the digits on the remote control. Or, page through the list using the channel up and down buttons.

   Note: if you're using two terrestrial antennas, press the ANT button on the remote to edit the other antenna's channel list when you are in TV mode.

Checkmarked items appear in the channel list. In other words, when you select that profile and begin surfing through TV channels with the channel buttons, only the checkmarked channels will appear as you surf.

   Note: the only channels that you can add to a list are the channels that were found during the channel search (for details on automatically searching for channels, go to page 116 in Chapter 7).
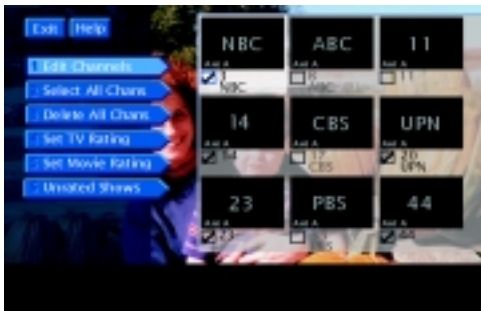
Don't forget the CLEAR button.

Press the CLEAR button on the remote control to remove the on-screen menus and return to normal viewing.

Another way to add channels

Press the number buttons on the remote to tune directly to the channel. If the system can obtain that channel's signal, it will be added to the channel list.

Selecting or Deleting All Channels

You might be able to save time when creating a TV channel list by using the *Select All Chans* option or the *Delete All Chans* option to either add or delete all channels before removing or adding individual channels.

Also, terrestrial program providers may make additional channels or subchannels available. To include new channels in your TV channel list:

1. Select *System Options* from the main menu, then select *Channel Search*. The system will run a channel search, making it aware of the new channel(s).

2. Select *Profiles* from the main menu.

3. Select the user profile name, then *TV Setup*.

4. Choose *Edit Channels* and checkmark the new channel.

Setting the TV Rating

The *Set TV Rating* menu enables you to program your TV so children can't access certain programs or channels.

The last three choices in the TV Setup menu involve software inside your TV (often called V-Chip) which allows you to "block" TV programs and movies based on violence, sex, or other content you might believe children shouldn't watch. In other words, it lets you program your TV so it will not display certain programs. Once you block programs, you can "unblock" them temporarily by entering the system password.

The V-Chip software inside your TV is initially turned "off," so if you choose not to implement it, you can just ignore it.

When turned "on," the V-chip software reads a code that most broadcasters send with programs. That code tells the V-Chip software the program's age-based rating (TV-MA, TV-14, etc.) and content themes (Violence (V), Adult Language (L), etc.). If you have blocked the rating or content themes that the program contains, *Program exceeds the TV rating limit you set* will appear when you turn to that particular channel. Broadcasters are not required to provide ratings. However, you can block out programs that have been given a rating of "Not Rated," and programs that are considered "unrated" because no code has been sent by the broadcaster.

The TV age-based ratings and content themes you can block are listed in the table on the next page.

Age-Based Rating	Description and Content Themes for Age-Based Ratings
TV-MA	Mature Audience Only. Specifically designed to be viewed by adults and may be unsuitable for children under 17. It contains one or more of the following content themes: **crude indecent language (L), explicit sexual activity (S), or graphic violence (V).**
TV-14	Parents Strongly Cautioned. Contains some material that many parents would find unsuitable for children under 14. Parents are strongly urged to exercise greater care in monitoring this program and are cautioned against letting children under the age of 14 watch unattended. This program contains one or more of the following content themes: **intensely suggestive dialogue (D), strong coarse language (L), intense sexual situations (S), or intense violence (V).**
TV-PG	Parental Guidance Suggested. Contains material that parents may find unsuitable for younger children. Many parents may want to watch it with their younger children. The program contains one or more of the following content themes: **some suggestive dialogue (D), infrequent coarse language (L), some sexual situations (S), or moderate violence (V).**
TV-G	General Audience. Most parents would find this program suitable for all ages. It contains **little or no sexual dialogue (D), no strong language (L) or situations (S), and little or no violence (V)**.
TV-Y7	Directed to Children 7 years and older. Designed for children ages 7 and above. It may be more appropriate for children who have acquired the developmental skills needed to distinguish between make-believe and reality. Themes and elements in this program may include mild **fantasy violence (FV)** or comedic violence, or may frighten children under the age of 7.
TV-Y	All Children. Themes and elements in this program are designed for a young audience, including children from ages 2-6. It is not expected to frighten younger children.

To set TV programming limits:

1.   From the main menu, select *Profiles*.

2.   Select the user name you would like to set limits for through the *Profiles* menu.

3.   Select *TV Setup* from the next menu.

4.   Select *Set TV Rating*.

Once you get to the *Set TV Rating* screen, use the arrows and OK buttons on your remote control to change the status of a TV program rating from *View* to *Block*. The following sections give you more details about how to change the status of TV program limits.

Note: Remember you are only blocking TV programs and movies for the one Profile you select in the *Profiles* menu. If you would like to block different programs for different users, be sure to complete the process for each of them.

Rating Status Buttons
Lets you know whether the status of the age-based rating limit to the left is View or Block.

Content Themes
Lists the content themes you can block or view with the content status buttons.

Age-Based Rating Limit
Lists the available ratings you can block or view with the rating status buttons.

Content Status Buttons
Lets you know which content themes are available for that rating, and whether the status of the content theme is View (V) or Block (B).
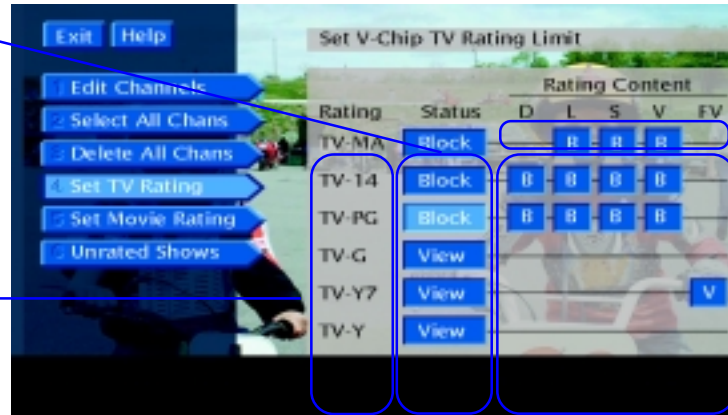
The Rating Limit Screen
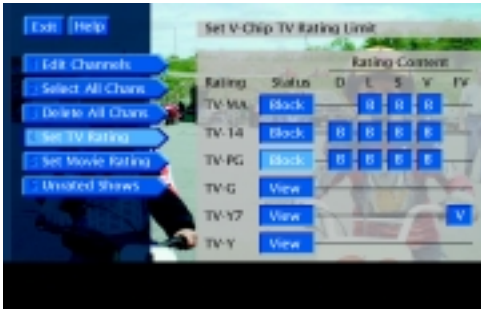
Changing the TV-PG rating status button from *View* to *Block* makes the higher ratings automatically change to *Block* and the corresponding *Rating Content* ratings change to B (block).

Hierarchy of Age-Based Ratings	
TV-MA	Mature Audience Only
TV-14	Parents Strongly Cautioned
TV-PG	Parental Guidance Suggested
TV-G	General Audience
TV-Y7	Directed to Children 7 and under
TV-Y	All Children

Blocking Age-Based Ratings

You can automatically block all program ratings above a specified age-based rating level. For example, if you only want your child to watch programs that have a TV-G rating and lower (in other words, you want the child to watch only TV-G, TV-Y7, and TV-Y programs), then you need to block programming with higher ratings.

To block programs with higher ratings:

1. First, determine the lowest level rating you **don't** want the child to watch.

2. Highlight the rating status button that corresponds with the lowest rating you **don't** want the child to watch. (In the example above, you would point to the rating status button corresponding to TV-PG, since the highest rating you want the child to watch is TV-G.)

3. Press OK to change the button from *View* to *Block*. The status for this and all higher ratings automatically changes to *Block* (and *B).*

4. Press the left arrow button on the remote control to return to the menu.

Viewing Age-Based Ratings

After you block age-based ratings, you have the option of going back and changing some of the ratings to *View*.

1. Determine the rating you want to view that is currently blocked.

2. Use the arrows on the remote control to highlight the rating status button, such as TV-14, whose status is *Block*.

3. Press OK to change the status to *View*. Your child would then be able to watch all programs with a TV-14, TV-G, TV-Y7, and TV-Y rating.

   Note: the content theme buttons corresponding to TV-14 change to *View* as well. They and the age-based rating status buttons are the only buttons that automatically change back to *View* when you complete this process.

Content Themes

D	**Sexually Explicit Dialogue**
L	**Adult Language**
S	**Sexual Situations**
V	**Violence**
FV	**Fantasy Violence**

Blocking Specific Content Themes

You can block programs based on their content. (Content is represented by the D, L, S, V, and FV on your screen.) When you block a content theme for a particular rating, you automatically block that content theme for higher-rated programs as well.

For example, if you do not want your child to watch programs that have adult language (L) rated TV-PG or higher, you need to block adult language in all programming rated TV-PG and above.

To block program content:

1. Determine the lowest level of content you **don't** want the child to watch.

2. Highlight the content button that corresponds with the lowest content you do not want the child to watch. (In the example above, you would highlight the *V* button located under the L and to the right of TV-PG.)

3. Press OK to change the button from *V* to *B*. All higher ratings' language content theme button will automatically change to *B*.

4. Press the left arrow to return to the menu or exit the screen.

   Note: You must remember to lock the system for rating limits to take effect.

Viewing Specific Content Themes

After you block specific content themes, you have the option of going back and changing some of the content themes back to *View (V)*:

1. Determine the content themes you want to change to *View (V)*.

2. Use the arrows to highlight a particular content button, such as the *B* under language (L) corresponding with TV-14.

3. Press OK to change its status back to *V*. Your child would then be able to watch programs with TV-14 adult language content, but not programs with TV-PG or TV-MA language content.

   Note: Only the content theme status button corresponding to TV-14 language (L) changes to *View (V)*. Higher rated content theme buttons, such as that for TV-MA language, do not change.
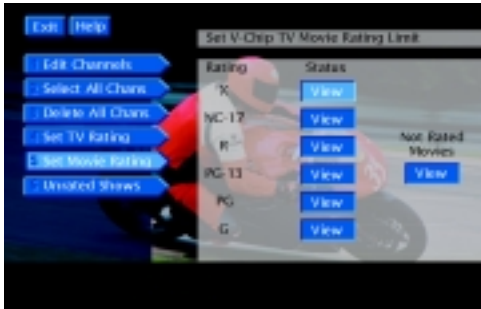
Setting Movie Ratings

You set movie rating limits by blocking movies rated above a specified level. To access the *Set Movie Rating* menu:

1. From the main menu, select *Profiles*.

2. Select the user for whom you would like to set limits.

3. Select *TV Setup* from the next menu.

4. Select *Set Movie Rating*.

    Note: the rating limits you set in the TV Setup menu only apply to TV programs — they don't apply to DIRECTV® programs.
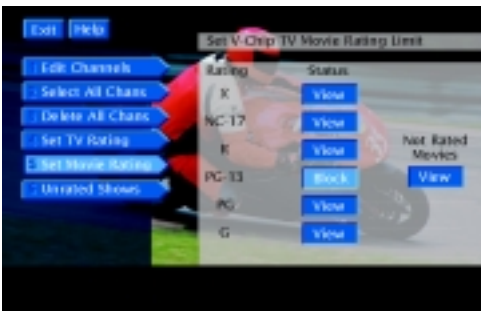
Blocking Movie Ratings

If you only want your child to watch movies that have a PG rating and lower (in other words, movies rated PG and G), then you can automatically block out all other movies with higher ratings.

To block movies:

1. Determine the lowest level rating you **don't** want the child to watch.

2. Highlight the rating status button corresponding to the lowest rating you do not want the child to watch. (In the example above, you would highlight the rating status button corresponding to PG-13, since the highest rating you want the child to watch is PG.)

3. Press OK to change the button from *View* to *Block*. All higher ratings' *View* buttons will automatically change to *Block*.

4. Press the left arrow to return to the menu.

    Note: You must remember to lock the system for rating limits to take effect.
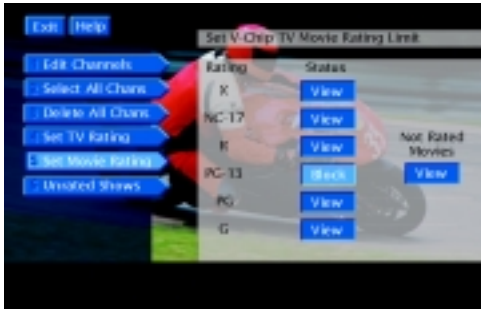
Viewing Moving Ratings

After you block movie ratings, you have the option of going back and changing some of the rating status buttons back to View:

1. Determine the movie ratings you want to change to *View* (*V*).

2. Use the arrows to highlight the status button you want to change.

3. Press OK to change its status back to *View*.

   For example, if movies with a rating of PG-13 and higher are blocked, you can change the rating status button corresponding with NC-17. Your child would then be able to watch all movies with a G, PG, and NC-17 rating.

   Note: Some movies might be "Not Rated." After blocking movie ratings, you must separately set *Not Rated Movies* to View in order to see these movies.
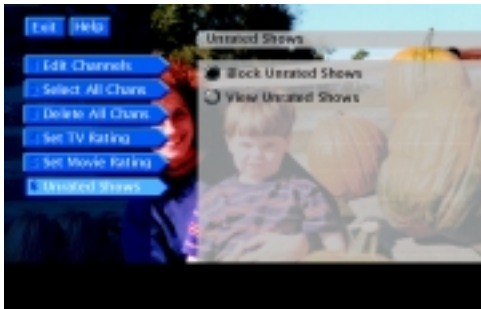
Blocking Unrated TV Shows

Some TV programming is not rated, but might contain material you don't want your children to see. These shows must be blocked separately.

To block unrated shows:

1. Select the user you would like to set limits for through the *Profiles* menu.

2. Select *TV Viewing*.

3. Select *Set TV Rating*.

4. Now select *Unrated Shows*.

5. Highlight the radio button beside your choice of *View Unrated Shows* or *Block Unrated Shows* and press OK to select it.

   Note: Unrated TV shows might include news, sports, political, religious, local and weather programs, emergency bulletins, public announcements, as well as other programs broadcast without ratings. Unrated programs might also include those with ratings of "None" or "N/A."

The WHO button toggles through the profiles.

Choosing Your Profile

Each time you turn on the TV, the Family profile is selected by default. To select a different profile:

1. Press the WHO button to scroll through the profiles in the channel banner.

2. When your profile appears, enter your four-digit personal password to access your profile. If the profile is not password protected, you can just press OK to activate it.

   Note: the channel limits, spending limits, rating limits, and viewing limits associated with the chosen profile will be active only when the system is locked.

Locking and Unlocking a User Profile

When you lock a profile, you prevent anyone who doesn't know the user password from accessing the locked profile (this occurs when they press WHO on the remote control). It doesn't prevent them from accessing and editing the profile via the main menu if they first enter the system password.

When you lock a profile (excluding "Family"), you lock its channel limits, rating limits, and spending limits. After locking the profile, you need to enter the system password to edit these settings.

1. Choose the profile you want to lock or unlock from the *Profiles* menu, highlight *Lock User* or *Unlock User,* and press OK.

2. When locking a user, use the arrows or the number buttons on the remote control to enter a 4-digit user password.

Some other things to remember about locking and unlocking profiles follow:

- For a lock to be effective, you must exit the menu system.

- When you attempt to access a profile's channel that is blocked by one or more limits and the system is locked, you will be asked to unlock the video by entering the SYSTEM password.

Don't Forget Your Password

If you forget a USER password and the system is locked, you need to unlock the system and then assign a new user password. If the system isn't locked, select Profiles from the main menu, choose Unlock User, and enter a new password.

- If you enter the system password to override a limit, the lock icon in the channel banner will turn yellow, and all limits will be temporarily unlocked until you turn off the TV. When you turn on the television again, the system will be locked, and the Family profile channel list will be active. If you want to re-lock without turning off the television, you can select the lock icon in the channel banner.

- If a profile is locked and you want to access its channels, press WHO on the remote control and enter the user password.

- If a profile is locked and you want to access its settings, you can access it through the menu system by choosing *Profiles*, then choosing the profile name. Then enter the system password.
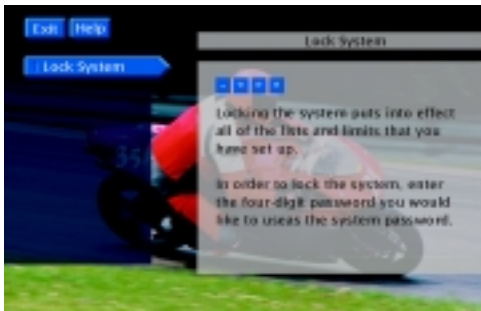
Locking the System

When you lock the system, all limits set up for all profiles are put into effect, regardless of whether the profile is locked or unlocked. Unlocked profiles require no user password to access their channel list if the system is locked.

When the system is locked, you can still access a profile and watch a channel in its channel list (if the profile is locked, however, you must have the user password). Locking the system activates all rating, spending, viewing, and channel limits for all profiles. When you lock the system, no one can modify any of these settings without first entering the 4-digit system password.

1. Select *Profiles* from the main menu. Then select *Lock System* and press OK.

2. Use the number buttons on the remote to enter a 4-digit system password.

3. Enter the password a second time to confirm it.

The Lock Icons

The Lock/Unlock icons in the channel banner are an easy way to lock or unlock the system. Press INFO and select the icon to change the lock status.

Green Unlock icon
The system is unlocked. Spending, viewing and other limits can be accessed and changed.

Yellow Unlock icon
A password has been entered to override limits. No limits can be accessed or changed in the menu without a system password.

Red Lock icon
Limits cannot be accessed or changed without the system password and all limits are in effect.

Unlocking the System

When the system is unlocked, the channel, spending, viewing, and rating limits that you set are no longer in effect. To unlock:

1. Highlight *Unlock System* in the Profiles menu and press OK.

2. Highlight *Yes* and press OK to confirm that you want to unlock the system.

When you attempt to access a channel that is blocked by one or more limits and the system is locked, you will be asked to temporarily unlock the system by entering the 4-digit system password.

If you enter the system password to override a limit, all limits are unlocked until you turn off the TV. When you turn on the TV again, the system will be locked, and the Family profile channel list will be selected. If you want to re-lock the system without turning off the TV, you can select the lock icon in the channel banner.

Tip: I forget my password

If you subscribe to DIRECTV® programming and forget the system password, contact your satellite program provider's authorization center.

If you forget the system password and do not have DIRECTV® programming, remove the access card from the TV's back panel (store it in a safe place, or reinsert it upside down to store it in the TV). Press and hold the INFO button on the front panel; simultaneously press and hold the WHO button on the remote control. Continue to hold for three seconds. All passwords will be cleared.

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Chapter 6: The Menu System

Chapter Overview:

The *Program Guide* menu and the *Profiles* menu are described in Chapter 5. The *Assistance* menu is explained in Chapter 7 (Help & Assistance). This Chapter explains the other items in the main menu.

- **Picture Quality Menu — pages 106 - 109**

- **Audio Menu — pages 109 - 113**

- **System Options Menu — pages 114 - 120**

- **Preferences Menu — pages 121 - 125**

Graphics are for representational purposes.
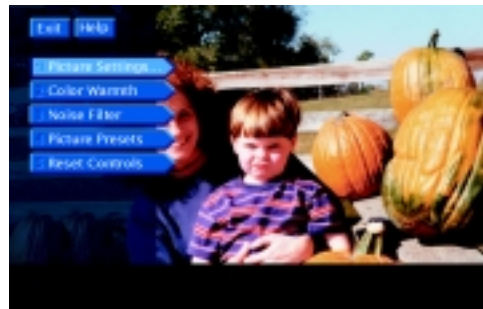
Tip: the other menus

The Program Guide menu and the Profiles menu were described in Chapter 5. The Assistance menu is explained in Chapter 7 (Help & Assistance). This Chapter explains all of the other items in the main menu.

Tip: Shortcut

You can press the corresponding number button on the remote control to quickly access a menu instead of using the down arrow button on the remote to highlight a menu.

Picture Quality Controls

The *Picture Quality* menu contains all of the TV's menus that you need to configure video settings.

To access the *Picture Quality* menu:

1. Press MENU on the remote control (the Main menu appears).

2. Press the down arrow button on the remote control to highlight *Picture Quality*, and then press OK. The following menu options appear, which are described in order on the following pages:

•   *Picture Settings*

•   *Color Warmth*

•   *Noise Filter*

•   *Picture Presets*

•   *Reset Controls*

Picture Settings

The *Picture Settings* menu displays the controls for adjusting the way the picture looks. The picture settings you specify apply to your current mode. Press the left and right arrow buttons on the remote control to move the slider to the desired position. Then select *Exit* when you are finished.

Your options under the *Picture Settings* menu are:

- **Contrast:** Adjusts differences between the light and dark areas of the picture.

- **Color**: Adjusts the richness of the color.

- **Tint** : Adjusts the balance between the red and green levels.

- **Black Level**: Adjusts the brightness of the picture.

- **Sharpness**: Adjusts the crispness of edges in the picture.

You can have seven different picture settings: one for analog channels, one for digital channels (including DIRECTV channels), and one for a component attached to CMPNT (component video input), and INPUT 1, 2, 3, and 4 (FRONT).

To create settings for analog or digital channels:

1. Enter the "mode" for which you would like to apply the setting (for example, press DIRECTV or TV).

2. Press MENU.

3. Select *Picture Quality*, and then select *Picture Settings* to set picture settings.

To create settings for components connected to the TV:
1. Enter the "mode" for which you would like to apply the setting (for example, press DIRECTV or TV).
2. Press the INPUT button until the correct Video Input Channel appears in the channel banner.
3. Press MENU.
4. Select *Picture Quality*, and then select *Picture Settings* to set picture settings.

Color Warmth

Color Warmth displays a choice list that lets you set one of three automatic color adjustments:

Cool for a more blue palette of picture colors.

Normal for an ordinary picture color.

Warm for a more red palette of picture colors.

Noise Filter

Noise filter displays a list that lets you set one of three automatic settings that allows you to reduce picture "static" or any type of interference. You can set *Noise Filter* to *Off, Low,* or *High*.

Noise Filter Off   No noise reduction occurs.

Noise Filter Low   The television produces a softer, smoother picture and retains picture sharpness and detail. This is especially useful for providing a cleaner picture in weak analog signal conditions.

Noise Filter High   The television produces an even softer, smoother picture. This is especially useful for providing a cleaner picture in weak analog signal conditions. However, when *Noise Filter* is set to *High*, picture detail is somewhat decreased.

Picture Presets

Picture Presets displays a choice list that lets you select one of three preset picture settings:

Bright Lighting

Normal Lighting

Soft Lighting

Personal Picture Preset.

Choose your setting based on the degree of lighting in your room. After you select a setting, the contrast, color tint, black level, and sharpness settings found under the *Picture Settings* menu are adjusted automatically.

If you choose *Personal Picture Preset*, you can customize color, tint, black level, and sharpness to your desired level, and the television "saves" those settings. After you've done this, it allows you to go back into the menu and select *Bright, Normal,* or *Soft Lighting* without losing your customized settings. For example, if you normally use *Personal Picture Preset* but want to watch a show in Bright Lighting, you can choose *Bright Lighting Now*, watch the show, and then afterwards return to your customized settings by choosing *Personal Picture Preset.*

Reset Controls

Allows you to reset all picture quality controls to their original defaults.

1. Enter the "mode" for which you would like to apply the setting (for example, press DIRECTV or TV).

2. Then press MENU.

3. Select *Picture Quality*, and then select *Picture Settings* to set picture settings.

Audio Menu

The *Audio* menu lets you adjust the controls that involve the TV's audio outputs. To access the Audio menu, press MENU on the remote, then select *Audio* from the main menu.
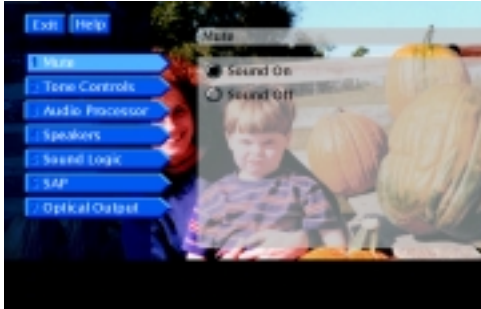
Mute

Turn Mute on (select *Sound Off*) to set the TV's volume to its minimum level (another way to set the volume to its minimum level is to press MUTE on the remote control).

Tone Controls

Lets you adjust the Bass, Treble and Balance. Use the right and left arrow buttons on your remote to adjust the sliders. Increasing the bass and treble output from the TV's internal speakers increases the low and high tones, respectively. Adjusting the balance shifts the audio output between the left and right internal speakers.

Audio Processor

Displays a choice list of available audio modes, which control the way the sound comes through your speakers.

To create settings:

1. Press MENU to access the main menu.

2. Select *Audio*, and then select *Audio Processor*. Depending on your speaker setup, any combination of the following options will appear:

   • *Mono* Plays the sound in monophonic audio only. This should only be used when receiving broadcasts where distance from the broadcasters makes the stereo signal weak. The channel banner displays the word Mono when you tune to a program that is broadcast in mono.

- **Stereo**   Splits the incoming stereo audio signal into left and right front channels. Most TV programs and recorded materials have stereo audio. The channel banner displays the word Stereo when you tune to a program that is broadcast in stereo.

- *__SRS Stereo (•)__   This audio processing technology adds greater depth and stereo separation to stereo audio signals.

- *__SRS Stereo-Focus (•)__   Redirects the treble portion of the audio in the speaker system to make dialog more understandable.
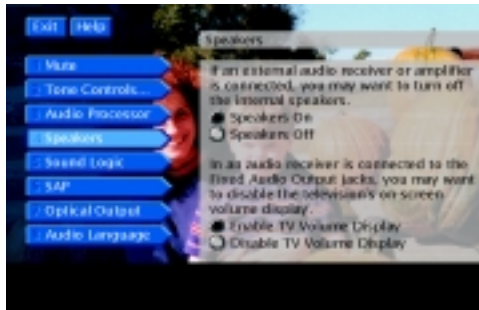
Speakers

Allows you to turn internal speakers on or off.

Allows you to disable the TV's volume and mute display if an audio receiver is connected to the FIXED AUDIO OUTPUT jacks.

Sound Logic

Monitors a program's audio track and limits volume excursions to a minimum and maximum volume range from the current volume setting. Acting like a dynamic range limiter, it compresses the dynamic range to limit sudden volume increases (for example, the sudden increase in volume you sometimes hear when a commercial starts.)

* SRS, SRS Stereo-Focus, Sound Retrieval System, and the SRS logo are registered trademarks of SRS Labs, Inc.

SAP (Second Audio Program)

When turned on, Second Audio Program plays the program's audio in a second language, if one is available. SAP is also used to broadcast a program's audio with descriptions of the video for the visually impaired.

> Note: SAP is broadcast in mono and is only available for analog programs, not digital programs.

Optical Output

If you've connected a six-channel amplifier/receiver to the TV's DIGITAL AUDIO OUT jack with a digital optical cable (or a SPDIF cable), you can receive Dolby Digital Surround Sound if transmitted. Choose the correct setting in the *Optical Output* menu.

Off: Your TV isn't connected to an amplifier or receiver.

Auto Select: Your TV automatically chooses between Dolby Digital and PCM based on the audio signal it is receiving. This is the best selection if you have a Dolby Digital[†] and PCM decoder that was manufactured in the last several years.

Dolby Digital: Your TV is connected to a Dolby Digital only decoder; it will provide six independent soundtrack channels through the optical output jack (labeled DIGITAL AUDIO OUT).

PCM: Your TV is connected to a PCM only decoder; it provides two independent soundtrack channels.

> **Note:** Some receivers can't differentiate the audio signal through the optical cable (SPDIF cable) when you change from DIRECTV mode to TV mode. If you lose audio when you switch modes, connect left and right audio cables to the AUDIO OUTPUT jacks on the back of the TV and to the Audio Input jacks on the amplifier/receiver.

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† Manufactured under license from Dolby Laboratories. "Dolby", "Pro Logic" and the double-D symbol are trademarks of Dolby Laboratories. Confidential Unpublished Works. ©1992-1997 Dolby Laboratories, Inc. All rights reserved.

Audio Language

The *Audio Language* menu lets you choose the default audio language you want to hear when it is available. The system will automatically set the audio program to the selected audio language when the channel you are viewing is either a DIRECTV or a digital terrestrial channel and the specified language is available.

In the *Audio Language* menu, highlight the audio language you want by pressing the up and down arrows buttons on your remote control. Press OK to activate.

Icon in the Channel Banner

There is an audio language icon in the channel banner.

- If the icon is highlighted while watching a digital (ATSC) or a DIRECTV channel, two or more audio languages are available. To scroll through the audio languages available and to play them, highlight the audio language icon and repeatedly press OK.

- If the icon is highlighted when watching an analog (NTSC) TV channel, a Second Audio Program (SAP) is available. To play the SAP for the current channel until the channel is changed, highlight the icon and press OK.

System Options menu

This menu includes the following submenus:

- *Signal Source*

- *Signal Type*

- *Auto Tuning*

- *Channel Search*

- *Mailbox*

- *Purchases*

- *Time and Date*

To access the *System Options* menu, press MENU on the remote control (the main menu appears), highlight *System Options* and press OK (the *System Options* submenus appear). To access a submenu, press the down arrow button on the remote to highlight the submenu, and press OK.

Changing the Signal Source

The *Signal Source* menu allows you to choose the source from which you would like the signal to come: Antenna A, Antenna B, DIRECTV, or Video Inputs. The same can be accomplished using the ANT, DIRECTV, and INPUT buttons on your remote control. But if you misplace your remote control, you can use the front panel buttons to access this menu and change the signal source.
To access the *Signal Source* menu:

1. Press MENU to access the main menu.

2. Select *System Options* from the main menu.

3. Select *Signal Source* from the next menu.

4. Use the arrow and OK buttons to select which source from which you would like to receive a signal.

Select whether you are receiving signals from an off-air antenna or cable.

Changing the Signal Type

The *Signal Type* menu lets you choose whether you are receiving a signal from cable TV or an off-air antenna. When you run Channel Search, the TV automatically detects your signal and you don't have to specify it here. However, if you decide to change the source, you will need to use the *Signal Type* menu.

Note: When your LCOS HDTV is in DIRECTV mode, this menu isn't available.

Auto Tuning

This menu displays the various components you have connected to your TV. It lets you program a component button on the remote control (VCR1, VCR2, or DVD) so that pressing the button automatically turns on the component, turns on the TV, and tunes the TV to the correct video input channel.

1. Press the arrow buttons on the remote control to highlight the rectangular field that corresponds to the component.

2. Press the OK button on the remote to choose the input channel the TV needs to tune to when you press that component button. Choices for each component are:

   Not Connected Select this if you don't have the component connected to the antenna or video input jacks on the back of the TV, or if you don't want the TV to tune to a channel when the particular component button (VCR1, VCR2, or DVD) is pressed.

   Ch 2 (or 3 or 4) - Ant A Select this if your component is connected to Antenna A on the back of the TV and you want the TV to tune to channel 2 (or 3 or 4) when you press the component button (VCR1, VCR2, or DVD).

   Ch 2 (or 3 or 4) - Ant B Select this if your component uses Antenna B on the back of the TV and you want the TV to tune to channel 2 (or 3 or 4) when you press the component button (VCR1, VCR2, or DVD).
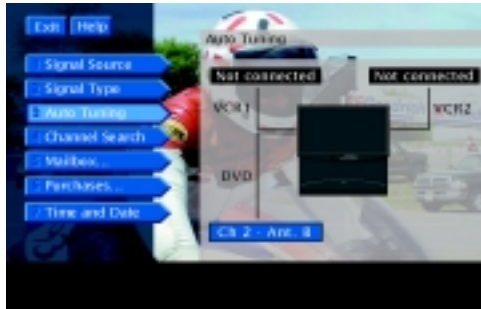
Video Input 1 (or 2 or 3) Select this if your component is connected to the Video INPUT1 (or 2 or 3) jack on the back of the TV and you want the TV to tune to the video input channel VID1 (or VID2 or VID3) when you press the button. If you have an S-Video cable connected, the input channel might appear as S-VID1 (or S-VID2 or S-VID3).

Cmpnt Video **(Component Video Input)** Select this if your DVD Player is connected to the COMPONENT VIDEO INPUT jacks on the back of the TV and you want the TV to tune to the input channel *CMPNT* when you press the DVD button.

3. Now you can use the component buttons (VCR1, VCR2, or DVD) on the remote control to tune to the correct input channel when you press the button.

For example, if you've programmed your remote control and completed the above steps to auto tune, you can press the VCR1 button and the TV will turn on and tune to the correct channel automatically. Since the remote is in VCR mode (you pressed the VCR1 button), you can use the REVERSE, PLAY, FORWARD, RECORD, STOP, and PAUSE buttons to operate your VCR.

Channel Search

Engaging in a channel search tells the TV to search for all the terrestrial TV channels available through the antenna inputs. When the TV finds an active channel, it places it in the channel list. Inactive channels (weak stations or channels with no signal at all) aren't placed in the channel list.

The *Channel Search* screen lets you choose a *Full Search* or a *Quick Search*.

Full Search: searches both Antenna A and B, automatically detects whether you are using cable or an off-air antenna.

Note: a Full Search can take up to 30 minutes.

Quick Search: searches only for channels on the antenna you're currently using and uses the current *Air* or *Cable* setting. For optimum reception, you need to conduct a Quick Search after you've adjusted a terrestrial antenna.

Running Channel Search collects all available TV channels in a channel list.

Tips:

You can also edit the TV channel list and remove unwanted channels by using the Profiles menu.

Another way to add TV channels is to directly tune to them using the digit buttons on the remote control. If the system can obtain that channel's signal, it will be added to the channel list.
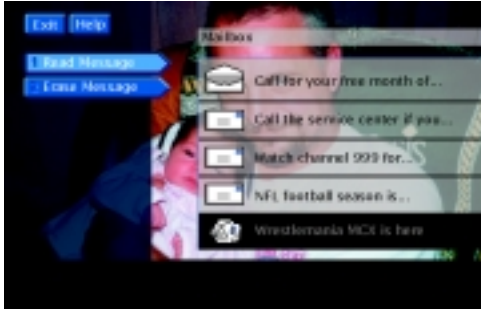
Mail provides the latest information from program providers.

Mailbox

If you have ordered DIRECTV® programming, the mailbox shows you messages that are sent—or "mailed"—from your program providers. For example, you may receive a message calling your attention to a new service or special program offering. If you have new or unread mail, the mail icon in the channel banner is highlighted.

Checking Your Mail

1. Select *Mailbox* from the *System Options* menu or the mail icon from the channel banner to view your mail.

2. Highlight a message and press OK (the message opens).

2. Press OK again to close the message.

3. If you want to erase a message, highlight *Erase Message* and press OK. When you exit, messages not erased are saved in memory.

Purchases: Pay Per View Programs

Pay Per View programs (PPV) are DIRECTV programs that you purchase—like a movie ticket—if you subscribe to DIRECTV® programming. You can preview movies on certain channels to determine if you would like to purchase them.

Previewing and Purchasing

You can preview and purchase DIRECTV® Pay Per View movies and events if you subscribe to DIRECTV® programming.

To preview a movie or event:

1. When in the DIRECTV program guide, use the down arrow button on the remote to move the highlight to the bottom of the screen.

2. Select the *Other Guides* icon.

3. Select *Attractions Guide* and select a channel to preview.
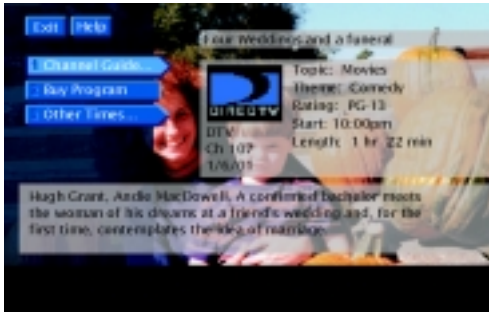
To purchase a movie or event, you can take one of two actions:

- Tune to a PPV by channel surfing within DIRECTV® channels and finding a PPV channel. When you find it, press the INFO button find more information and details about how to purchase it.

    -or-

- Highlight a PPV program from the DIRECTV® programming guide and press INFO. The Program Details screen will appear and give you more information about the program. From this screen you can also purchase the program.

From the Program Details screen, you can select:

- *Channel Guide* to see a program lineup for that channel

- *Buy Program* to purchase the program

- *Other Times* to see what other times the program is available

The options available to you may vary according to the type of program you select.

Using the Attractions Guide

Your program providers may offer future programming events not currently listed in your DIRECTV program guide. These events are called "coming attractions" and can be previewed in the Attractions Guide. To access the Attractions Guide:

1. Press the DIRECTV button on the remote control. Then press GUIDE.

2. Use the down arrow icon to move the highlight to the bottom of the screen.

3. Select the *Other Guides* icon.

4. Select *Attractions Guide*.

5. Select a channel.

Using the Purchases Menu

The Purchases menu allows you to review upcoming and past DIRECTV® Pay Per View purchases and edit spending limits.

The list of purchases may be longer than one screen; use the down arrow button on the remote control to see more items. The display also shows the title, channel, date, time, and cost of each program.

> **Note:** the past purchases list might not be updated until the end of the billing cycle, and therefore may show purchases for which you have already paid.
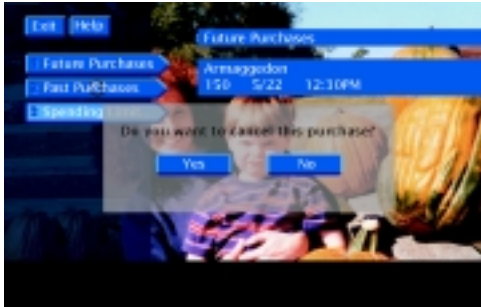
Reviewing and Canceling an Upcoming Purchase

You can review the program description, as well as cancel an upcoming purchase. Highlight an upcoming purchase from the DIRECTV *Future Purchases* screen and press OK. To cancel, select the program, and then press OK.

Setting the Time and Date

You can set the current time, the current date, the time zone, and whether or not you observe daylight saving time.

Use the arrow buttons to move around the menu screen, OK to select an item, and the number buttons on your remote control to enter numbers. If you have already acquired a digital signal, the time was automatically set and you can't reset it. You can, however, reset the time zone and whether you observe daylight saving time.

> **Important:** After you make changes, select *Save Changes*. If you don't, your choices will be discarded.

> **Note:** Broadcasters often send the time and date with program information. Sometimes this information is incorrect. If you notice the time and date is wrong even after you've set it correctly, disable *Off-Air Guides*. Go to page 143 for details.
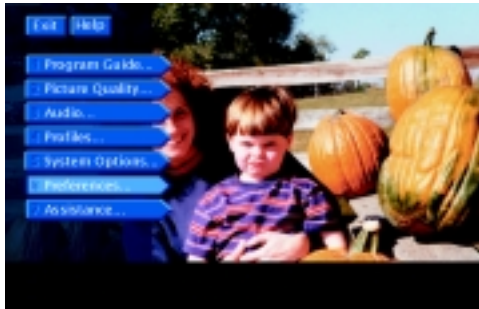
Using the Preferences Menu

The Preferences menu allows you to change some aspects of your TV to fit your personal preferences. The following sections outline what you can do in this menu.
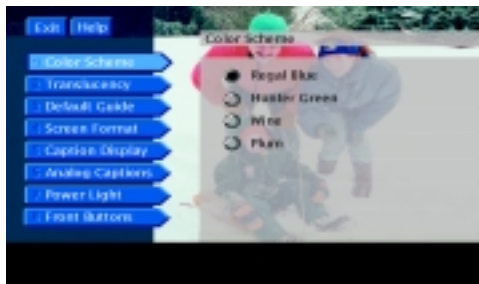
Color Scheme

You can change the color that appears in the menu and guides. To change the color, select *Preferences* from the main menu and select *Color Scheme.*

Translucency

You can adjust the level of translucency that the menu screens and program guides possess. Adjust the slider up for more translucency (the video behind the menu and guides will be more visible) or down for less translucency (less video will be shown behind the menu or guides).

> **Note:** When you tune to the component that is connected to the COMPONENT VIDEO INPUT jacks, translucency is set to opaque and can't be changed. The original setting will be restored when you start watching a component that's connected to other input jacks.

Default Guide

By default, the Detail Guide appears when you press GUIDE on the remote control, no matter if you access the DIRECTV® programming guide or the TV program guide. You can change the default guide from the Detail Guide to the Grid Guide or SurfGuide (DIRECTV only).

1. Select *Preferences* from the main menu, then select *Default Guide.*

2. Use the arrows and OK to choose which guide you want to appear when you press the GUIDE button on the remote control.

If you choose SurfGuide as the default, the Grid Guide will appear when you access the TV program guide, since the SurfGuide isn't available as a TV program guide.

Screen Format

If you receive an image with a 4:3 aspect ratio, the image will be displayed at that ratio on your LCOS HDTV unless you specify otherwise.

> Note: When watching an image via the COMPONENT VIDEO INPUT jacks, you won't be able to manipulate the screen format or view the screen format in the channel banner.

The *Screen Format* menu allows you to adjust the 4:3 image through the following options:

A 4:3 aspect ratio shows less of the image than the wide-screen 16:9 aspect ratio.

Normal   Choose this when receiving a 4:3 image and you want the on-screen appearance of the video to be a centered picture with black side panels (blank areas) on the right and left sides.

Full   Choose this when you want the television to adjust the 4:3 image horizontally so it fills your 16:9 screen. Black side panels won't be added, and the image is vertically unaltered. This setting is especially useful for viewing 16:9 formatted DVDs.

Fill   Choose this when receiving a 4:3 image and you don't want black side panels on the right and left sides of the screen. The TV adjusts the image, both horizontally and vertically, so it fills the height and width of your 16:9 screen with no black side panels added. It will also maintain the correct image proportion. Use with material such as "letterboxed" laserdiscs or VCR tapes.

Notes:

- Some digital (ATSC format) stations may transmit 4:3 images in a way that will not allow expansion. You will be unable to adjust the screen format.

- Because your LCOS television doesn't have a picture tube (also called a cathode ray tube), your TV won't be subject to images being burned onto the screen. "Burn-in" occurs when non-moving images are on a TV screen for a long period of time. However, your LCOS TV might experience "image sticking" from time to time where part of a previous image remains on the screen. This image sticking is normal and disappears within a period of time. You might notice it when you change formats.
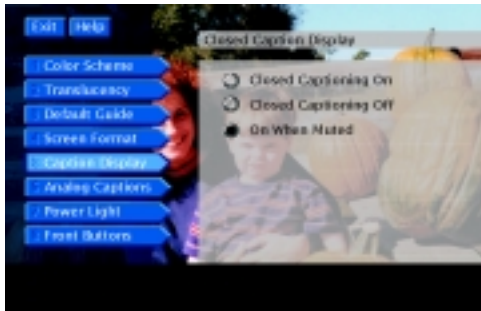
Caption Display

The Caption Display menu displays a choice list that lets you choose when closed captioning information is shown on the screen.

Closed Captioning On   Captioning information is shown always, when available.

Note: The PIP feature won't work when Closed Captioning is on.

Closed Captioning Off   No captioning information is displayed.

On When Muted   Captioning information is only shown when the TV's sound is muted, when available. (To mute the sound, press the MUTE button on the remote control and captioning information will appear on the screen.)

Note: The PIP feature won't work if you mute the TV and you set the Closed Captioning to *On When Muted.*

Analog Captions

You can select a closed caption mode, which is the mode, or source, used for displaying captioning information for all types of channels except digital terrestrial. The content of CC and Text are different; you can select which one you want to see on the screen.

- CC displays information at any position on the screen. It overlays the text on top of the picture as it is received.

- Text displays information at one particular position (such as the bottom third) of the screen. You cannot see the picture underneath the text.

You can choose between eight closed caption modes, or sources:

- *CC1* and *Text 1* are the primary caption and text services. The captioning or text is displayed in the same language as the program's dialog.

- *CC3* and *Text 3* serve as the preferred data channels. The captioning or text is often a secondary language translation, simplified English, or displayed at a slower rate.

- *CC2* and *CC4* and *Text 2* and *Text 4* are rarely available and broadcasters use them only in special conditions, such as when CC1 and CC3 are not available, or Text1 and Text3 are not available.
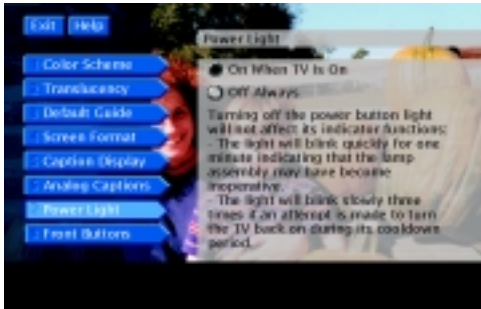
Power Light

When watching television in a dimly lit or dark room, you might prefer to turn off the power light on the front of your TV.

> Note: Even if you turn off the power light in this menu, the indicator functions will still work during the lamp cool-down cycle or when the lamp unit has burnt out. Go to page 32 for details.
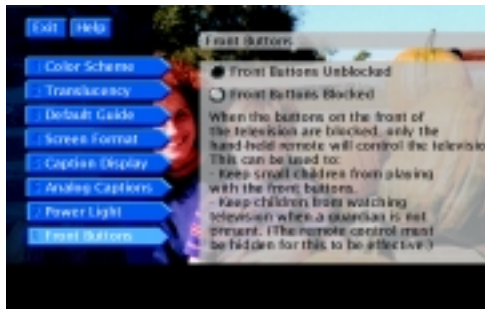
Front Buttons

This menu gives you the ability to make the buttons on the front of your TV inactive. This feature is useful to keep children from playing with the buttons on the front of the TV, or to be used as yet another parental control.

For example, if you don't want your child to watch TV, or maybe you just don't want them to change the channel or volume, you can select *Front Buttons Blocked* — of course, you'll have to keep the remote control out of the child's reach for this to be effective.

Front Buttons Unblocked: the buttons on the front of the TV work as described on page 31.

Front Buttons Blocked: the buttons on the front of the TV don't work. You can only operate the TV with the remote control.

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Chapter 7: Help & Assistance

Overview:

Troubleshooting Quick Reference

Your LCOS television utilizes the latest technology to create a crisp, high-resolution picture. If you are experiencing something unusual, please review this troubleshooting section to find the solution.

General TV

PIP (Picture-In-Picture)

Remote Control

Ratings (V-Chip)

General TV Problems

Humming noise

- Your LCOS television is equipped with fans to keep it cool. The lamp unit that is part of the LCOS technology needs to cool for a short period of time after you turn off the TV. Therefore, a slight humming noise is normal. One of the fans continues to run even after you turn off the TV because the LCOS TV is continually working to gather information for program listings.

TV doesn't turn on right away

- It takes a few seconds for your TV's internal lamp unit to warm up, and for your TV to reproduce all of the information required to produce a crisp, clear picture. Go to page 33 for more details.

- You might have tried to turn on the TV when the lamp unit inside of the TV was in cooldown mode (lamp cooldown mode lasts from approximately 30 to 60 seconds after the TV is turned off). Wait 30 seconds and turn on the TV.

TV won't turn on

- Make sure the TV is plugged in, and press the ⏻ (power) button on the front of the TV instead of using the remote control to turn on the TV.

- Plug the TV into a wall receptacle or power strip. DON'T plug your TV into an outlet that is controlled by a light switch because the TV needs to be receiving power continuously, even when it's "off."

- Check the wall receptacle (and extension cord, if applicable) to make sure it is "live" by plugging in something else.

- Maybe the remote is in the wrong mode — press the DIRECTV or the TV button on the remote.

www.rca.com

Go to rca.com for more information about RCA products, frequently asked questions, and troubleshooting tips.

- Did the power light on the front of the TV blink when you tried to turn on the TV? If it did, it means the TV's lamp was in cooldown mode which takes approximately 30 seconds. Wait 30 seconds and turn on the TV again.

- Have you blocked the front buttons, and you're trying to turn on the TV with the ⏻ (power) button on the front of the TV? Press the TV button on the remote control.

- If you've just replaced the TV's lamp assembly unit, check the lamp assembly access door on the back of the TV. If it isn't in place and securely attached, the TV won't turn on.

- Unplug the power cord from the wall outlet. Wait a few seconds, and plug it back in.

No picture, no sound but TV is on (blank screen)

- Try another channel (there might not be any programming on this channel at this time.)

- Maybe you've tuned to a video input channel that isn't being used (i.e., cables aren't plugged in to the corresponding jacks on the TV and to the corresponding component). An example follows: you've tuned the TV to the VID2 channel, but the component, such as a DVD Player or VCR, isn't connected to the INPUT2 jacks on the back of the TV).

- Maybe the component (VCR, DVD, etc.) connected to the input jacks isn't turned on.

- Check all cables to make sure they are completely connected.

- Maybe the cables you're using are defective. Try new cables.

- If watching the VCR (connected only through antenna input), make sure your TV is tuned to channel 3 or 4 – same as CH3/4 switch on VCR. Also press the TV/VCR button on the VCR to put the VCR in the correct mode.

- Reset the TV — simultaneously press and hold the ⏻ (power) button and channel down button on the front of the TV for at least 3 seconds to reset the TV.

No picture, sound okay

- Some music channels on DIRECTV don't have video.

- Is the light on the front of the TV blinking? If there's no picture, but you can hear audio and the power light on the front of TV blinks and then flashes, the lamp unit inside of your TV needs to be replaced. Go to page 144 for instructions.

Sound okay, picture poor

• Check terrestrial antenna connections and satellite dish pointing. Make sure there aren't any sources interfering with reception such as foliage blocking the dish, something placed in front of the dish, or snow on the dish. Try placing the terrestrial antenna above the roof-line. Also, purchasing a bigger terrestrial antenna might improve the picture when you're viewing off-air broadcasts.

• Try adjusting the picture quality in the menu system, especially sharpness, to improve weak signals. Go to page 106 for more information.

• Viewing a VCR while the TV *Signal Type* setting is *Air* results in poor picture performance. To change the setting, go to the main menu, select *System Options*, then select *Signal Type,* and select *Cable*.

TV turns off while playing

• Is the light on the front of the TV blinking? If there's no picture, but you can hear audio and the power light on the front of TV blinks and then flashes, the lamp unit inside of your TV needs to be replaced. Go to page 144 for instructions.

• Electronic protection circuit may have been activated because of a power surge. Wait for at least a minute and then turn on the TV again. If this happens frequently, the voltage in your house may be abnormally high or low.

Power light on the front of the TV is blinking or flashing

The power light serves as an indicator. There are two scenarios for why the power light would blink:

Light blinks slowly: you've tried to turn on the TV when the lamp unit is cooling. Wait approximately 30 seconds and turn on the TV again.

Light blinks slowly for several seconds, pauses for about a minute, blinks again, and pauses for about a minute: the TV is trying to connect with the lamp unit. One of two things will happen:

• The power light will start **flashing for approximately 1 minute** — this means the lamp unit needs to be replaced (go to page 142 for details).

• The TV will turn on (the TV has successfully connected with the lamp unit).

Black box appears on the screen

- Captioning may be turned on and in text mode. Check the settings in the Caption Display and Analog *Captions* submenus in the Preferences menu. Go to pages 123 and 124 for more information.

Can't select a particular channel

- The channel might be blocked or not approved in the *Profiles* menu. Go to page 90 for more information.

- You might have tuned to a vacant channel. You can remove channels from the channel list (go to page 94 for more information).

- Did you block the front buttons and try to use the channel buttons on the front of the TV? Try changing channels with the remote control.

- If you're using a VCR, press the TV/VCR button on the VCR to put it in the correct mode.

- Try disabling off-air guides (go to page 143) because the TV might be receiving invalid program guide information from a digital TV broadcaster that is preventing the TV from tuning to a known channel.

The time is wrong in the channel banner

- The wrong time appears sometimes because the data sent via the broadcast is incorrect. To correct this problem you need to disable the Off-Air Guides:

  1. Select *Assistance* from the main menu.

  2. Select *Off-Air Guides* from the Assistance menu.

  3. Use the arrows on the remote to highlight *Do Not Acquire Off-Air Guides* and press OK to select it. Then exit from the menu.

  4. You should now rebuild the channel list by selecting *System Options* from the main menu and selecting *Channel Search*.

Wrong picture

The TV and most VCRs let you toggle between pictures: one can be the picture from DIRECTV signal or a terrestrial antenna (or cable) and one can be from the VCR. If you don't see the picture you think you should be seeing, try using these buttons to toggle between the pictures:

- Press the TV/VCR button on the VCR remote or on the VCR's front panel. (If you've programmed your LCOS remote to operate your VCR, press VCR and then press the ANT button.)

- Press the TV button to put the remote in TV mode, and press the ANT button on the remote control.

- Press the TV button, and then press the INPUT button.

- Press TV or DIRECTV button on the remote control.

All of these actions let you switch the source of the video signal from DIRECTV to the off-air antenna or cable, and vice versa.

No sound

- Maybe the sound is muted. Press and hold the volume up button to restore sound.

- Maybe the speakers are turned off in the *Audio* menu. Go to page 111 for more information.

- Make sure you've properly connected the audio cables (matching left to left and right to right). You must connect audio cables even if you've connected a component to the TV via the COMPONENT VIDEO INPUT (Y, P_B, P_R) jacks or the S-VIDEO jack (these jacks only carry video signal, not audio).

- If you've connected an audio amplifier to the TV via the DIGITAL AUDIO OUT jack on the TV, try connecting audio cables as well because some audio receivers don't automatically change the audio signal flow when you change modes on the receiver (i.e., when you change from DIRECTV mode to TV mode).

- Check the INT/EXT switch on the back of the TV.

Noisy stereo reception

- You might have tuned to a weak station. Change to mono mode instead of stereo in the *Audio* menu under *Special Audio*. (Go to page 110 for more information.) You might also try adjusting the antenna and/or speaker connections.

PIP Problems

- If you are channel surfing and the PIP disappears, you may have tuned to a digital channel. To view PIP and the main picture, make sure that both the main and PIP channels are analog inputs, or signals. Continue changing the channel until you find an analog (NTSC format) channel. The PIP window will reappear.

- If you press PIP and the PIP box is blank (no picture), the rating of the program might exceed the limits you set. For information on removing limits, go to page 101.

- If the PIP window disappears when closed captioning is displayed or when you press the MUTE button on the remote control, you have a conflict in your settings. Your LCOS TV isn't able to display a PIP window when

  - the mute function is turned on, and you selected *On When Muted* in the *Closed Captioning* menu

  - closed captioning is on

  - parental controls have blocked the current program

Remote Control

No response after pressing a button

- Replace the batteries. Go to page 23 for more information.

- Make sure the batteries are properly installed. Follow the diagram inside the battery compartment to place the + end and the – end of the batteries into the remote in the right direction.

- Perform operations reset and/or manufacturer's reset (go to page 58 for details).

- Check the remote's display. If *Bad E2* appears in the display, you need to replace the remote control or have it serviced. An E2 refers to the EEPROM – the part of the remote that's used to store programmed codes, the mode of the remote, learned codes, and macros.

The remote doesn't operate components

- Make sure you're in the right mode (i.e., press the component button — DVD, VCR1, VCR2, or AUX).

- Try all code programming procedures (go to page 44 for more information).

- Wrong distance or angle. Remote controls use infrared (IR) technology. The component has an IR sensor that detects the IR signal that is sent from the remote control. In order for the remote control to communicate with the component, there must be a clear line of sight between the remote control and the component.

  - Make sure there aren't any obstructions between the remote and the component.

  - Point the remote at the component, NOT the TV.

  - Move closer to the component.

OK button doesn't work when you're operating other components.

- Try pressing the MENU, GUIDE or ENTER button.

IR Learn doesn't work (L1, L2, L3 buttons)

- The batteries in this remote control and/or the other remote control are weak. Replace the batteries.

- The two remote controls are too close to one another or too far away from each other.

- *MEM FULL* appears when the memory is full. You'll have to delete some other settings (macro, learning, etc.,) to free-up memory space.

- The signal coding of the LCOS remote might not be compatible with the other remote — the Learning feature won't work.

- There's too much light in the room. Remote controls send signals with infrared (IR) signals. If there's too much light, the signal isn't as strong as it needs to be for the IR Learn feature to work.

Invalid program guide information when you're in TV mode

- Make sure your antenna is properly set up and receiving a strong signal. If this still does not correct the problem, disable your system's ability to acquire off-air TV program guides:

  1. Press MENU (the main menu appears).

  2. Press the arrow buttons to highlight *Assistance,* and press OK.

  3. Press the arrow buttons to highlight *Do Not Acquire Off-Air Guides*, and press OK. Go to page 143 for more information.

Ratings

The rating limits don't work.

- You must lock the system in order for ratings that you've set up to take effect. Go to page 102 for more information.

Forgot password: I don't remember my system password and I want to unlock the ratings

- If you forget your system password and subscribe to DIRECTV® programming, you should call DIRECTV to obtain a new one. You might be charged a fee for this service.

  If you forget the system password and do not have DIRECTV® programming, remove the access card from the TV's back panel (store it in a safe place, or reinsert it upside down to store it in the TV). Press and hold the INFO button on the front panel; simultaneously press and hold the WHO button on the remote control while pointing it at the TV. Continue to hold for three seconds. All passwords will be cleared.

I don't remember my profile password and I want to unlock the ratings

- Unlock the system, and then unlock the password.

I can't watch a program even though it's not violent or offensive

- The program might have been assigned NR (not rated) status. News, weather bulletins, etc., are often not rated. Go to page 100 for more information.

- Check the ratings you have set (go to page 93 for more information about ratings limits).

The Assistance Menu

The *Assistance* menu contains the following submenus:

- ***Interactive Setup***
- ***Antenna Info***
- ***Dish Pointing***
- ***New Access Card***
- ***System Test***
- ***Off-Air Guides***
- ***Upgrades***

Each submenu is explained on the following pages.

Interactive Setup

You should have completed the *Interactive Setup* the first time you plugged in your TV. However, if you need to access the interactive setup again, you can access it through the *Assistance* menu.

1. Make sure the remote is in DIRECTV or TV mode.
2. Press MENU on the remote control (the main menu appears).
3. Select *Assistance* from the main menu.
4. Select *Interactive Setup* and follow the on-screen directions.

The steps involved in the interactive setup include:

- Setting the time and date
- Searching for channels
- Setting up speakers
- Selecting an audio processor
- Specifying your satellite dish antenna type and finding coordinates
- Viewing the signal meter and running the system test

  Note: If you don't subscribe to DIRECTV® programming, you can select "Skip this step" when asked to specify satellite dish antenna type and run the system test.

The interactive setup process allows you to complete all steps or selectively skip steps.

Antenna Info

The *Antenna Info* menu helps you determine what terrestrial TV channels are available. This menu is useful for checking the strength of digital channels, obtaining all channels possible, and adjusting the direction of any terrestrial TV antennas connected to ANTENNA A and ANTENNA B jacks on the back of your TV.

• Press MENU to bring up the main menu, select *Assistance*, then *Antenna Info*.

The Antenna Info screen reports the status of the signal search and lists channels that are being received or have been found from terrestrial antennas. To switch between antennas, highlight a channel and then press ANT on the remote control.

When getting antenna information, the screen lists:

• the channel number

• the station name, if it has been sent from broadcaster and you set Off-Air Guides to *Acquire Off-Air Guides*.

• whether the channel is digital or analog

• which antenna is receiving the signal

• if it's a digital channel, the current signal strength (the higher the number, the better protection you'll have against signal dropouts).
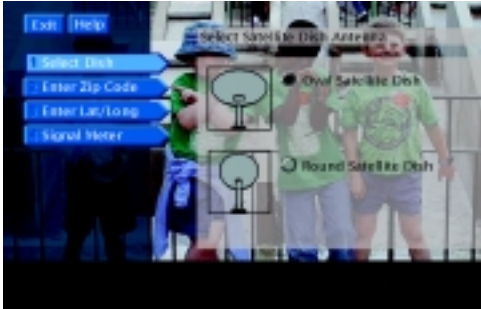
If you have an oval satellite dish, the *Select Dish* menu will prompt you for more information about your satellite dish antenna.
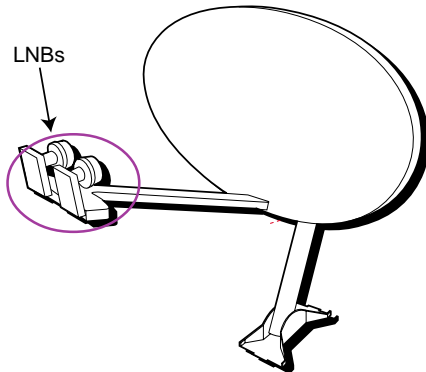
LNBs

An oval satellite dish with two LNBs.

Dish Pointing

The *Dish Pointing* menu helps you set up your TV and optimize your reception of the satellite signal.

Selecting Dish Type

It is important to complete each of the following steps required for your satellite dish antenna. If you do not, you will not receive proper dish pointing coordinates and will not be able to take full advantage of your system.

Specify the type of dish you are using:

1. Press MENU on the remote control to bring up the Main menu.

2. Select *Assistance,* then *Dish Pointing.*

3. Use the arrows to highlight *Select Dish*, then press OK.

4. Specify the type of dish you are using: an oval satellite dish or a round satellite dish.

5. If you are using a round satellite dish, you are finished selecting your dish.

6. If you are using an oval satellite dish, specify the number of satellite locations from which your satellite dish antenna will be receiving signals. This number is equal to the number of LNBs (Low Noise Block converters) mounted on your dish. For example, if you have two LNBs, select *2 Satellite Location Dish*.
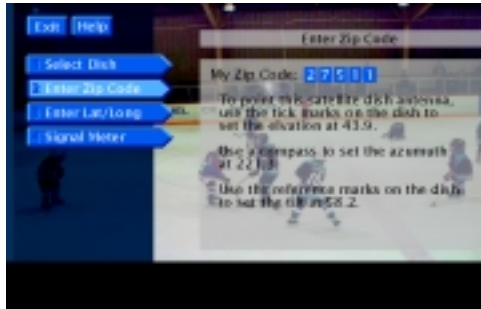
Find Your Dish Pointing Coordinates

Use one of the available methods (ZIP Code, or Latitude/Longitude) to find your dish pointing coordinates.

Follow these steps to obtain your dish pointing coordinates using the ZIP Code of the dish installation location:

1.   Press MENU on the remote control to bring up the Main menu.

2.   Select *Assistance*, then *Dish Pointing*.

3.   Select *Enter ZIP Code*.

4.   Enter the ZIP Code for the satellite dish antenna installation location.

5.   Record the elevation, azimuth, and tilt (oval satellite dish only) numbers below for future reference

Elevation _____ Azimuth _____

Tilt (oval satellite dish only) _____

Azimuth is the side-to-side direction that the satellite dish antenna is pointed.

Elevation is the up/down angle that the satellite dish antenna is pointed.

Tilt is the circular rotation of the dish itself, like the motion of a steering wheel.

The signal meter screen you see may look somewhat different from the one pictured above.

The "Peak Signal" indicates the highest signal strength you have obtained, which is not necessarily the highest possible signal.

While the maximum signal strength is 100, the signal strength you achieve will probably be less. Although there is no difference in picture quality between signal strengths of 60 and 85, the higher the signal, the less likely you are to experience negative effects in degraded conditions such as rain or snow (called "rain fade").

Using the On-screen Signal Meter

Use the signal strength meter to determine whether or not you are receiving a satellite signal. You can also use it to find the strength of the satellite signals.

Follow these steps to bring up the on-screen signal meter:

1. Press MENU on the remote control to bring up the Main menu.

2. Select *Assistance*, then *Dish Pointing*.

3. Select *Signal Meter*.

4. Press the OK button on the remote to select the highlighted satellite location (such as 101W). If the satellite dish antenna is pointed correctly, the signal meter will show you the current signal strength and you should hear a continuous tone. This is helpful when the TV and the dish are far apart so you can listen for the tone with maximum volume.

5. If you are using an oval satellite dish, press the left arrow button on the remote control to select the second satellite group and obtain a signal.

    Once you have a signal locked for both satellite locations (this may require some tweaking of the dish), you can select *Alternate for fine tuning* to improve your reception of both signals. When this button is selected, the signal meter alternates between the two signals every four seconds. Make small adjustments to your dish's position until both signals are satisfactory.

If you are not receiving a signal and you have entered all Select Dish information correctly, please see your satellite dish antenna Installer's Guide for detailed instructions.

To change transponders, press the right arrow button on the remote, then use either the digit buttons on the remote or the on-screen + and - buttons to enter the transponder number.

New Access Card

Periodically, your program provider may issue you a replacement access card if you subscribe to DIRECTV® programming. The *New Access Card* menu allows you to transfer the information from the old card onto the new one. The access card fits into a slot on the back of the TV (go to page 27 for illustration).

To replace the card:

1. Press MENU when the remote is in DIRECTV mode.

2. Highlight *Assistance,* and press OK.

2. Select *New Access Card.*

3. Follow the on-screen directions to validate the new card.

System Test

The *System Test* screen is accessed through the *Assistance* menu and allows you to initiate diagnostic procedures on the DIRECTV System, if you subscribe to DIRECTV® programming. You should use this feature to get your access card number or when your television doesn't seem to be receiving satellite signals correctly.

> **Note:** A message screen appears when you select *System Test* from the *Assistance* menu. This screen tells you whether the system passed each test. If your system fails the test, run the system test several times before concluding that there is a problem. Occasional fluctuations in the phone line or satellite signal can give temporary false readings. If you do not subscribe to DIRECTV® programming or you do not have your satellite dish antenna installed, the test will fail.

Off-Air Guides

If you are certain your terrestrial antenna is properly set up and receiving a strong signal, but you are receiving invalid program guide information or are having trouble tuning to a channel that you know exists, you can disable your system's ability to acquire off-air TV program guides. If you subscribe to DIRECTV® programming, you will still receive DIRECTV® programming guides if you do not receive TV program guides.

To disable acquisition of the TV program guide information:

1. Select *Assistance* from the main menu.

2. Select *Off-Air Guides* from the Assistance menu.

3. Use the arrows on the remote to highlight *Do Not Acquire Off-Air Guides* and press OK to select it. Then exit from the menu.

4. You should now rebuild the channel list by selecting *System Options* from the main menu and selecting *Channel Search*.

Upgrades

Your LCOS HDTV is able to receive upgrades or modifications to some of its features and functions.

> Important: In order to receive upgrades, you must a dish properly installed and pointed, the TV must be plugged in, and you must subscribe to DIRECTV.

These modifications will occur automatically, usually at times when your TV would likely be turned off. If your TV is on when an upgrade or modification is sent, you may experience a disruption in reception for a minute or two. Your reception should return to normal after the modification is complete. Please consult the *Upgrades* menu to find a schedule of upgrades or modifications planned by DIRECTV. The Upgrades feature is enhanced by *RSA™ Secure.

The "RSA Secure" logo ensures that only authorized upgrades or modifications are delivered to your HDTV.

Care and Cleaning

CAUTION: Turn OFF your TV before cleaning.
You can clean the TV as required, using a soft lint-free cloth. Be sure to occasionally dust the ventilation slots in the cabinet to help assure adequate ventilation.

The TV's screen may be cleaned with a soft, lint-free cloth as well. Take care not to scratch or mar the screen. If necessary, you may use a cloth dampened with warm water.

Never use strong cleaning agents, such as ammonia-based cleaners, or abrasive powder. These types of cleaners will damage the TV.

While cleaning do not spray liquid directly on the screen, or allow liquid to run down the screen and inside the TV. Also, avoid placing drinks, vases, or potted plants with water on top of the TV. This could increase the risk of fire or shock hazard or damage to the TV.

Burn-in and image sticking information: Because your LCOS television doesn't have a picture tube (also called a cathode ray tube), your TV won't be subject to images being burned onto the screen. ("Burn-in" occurs when non-moving images are on a TV screen for a long period of time.) However, your LCOS TV might experience "image sticking" from time to time where part of a previous image remains on the screen. This image sticking is temporary and won't damage your TV.

Replacing the Lamp Unit

Your TV's source of light comes from a lamp – similar to lamps used in film projectors. Although this lamp is long-lasting, it will need to be replaced eventually.

When to replace the lamp
You probably need a new lamp if there's no picture, but you still can hear the audio and the power light on the front of the TV does the following: blinks, pauses for about a minute, blinks again, pauses again, and then flashes for approximately 1 minute.

What to do
Call 1-866-SCENIUM to find out if your TV is still under warranty. If your TV is still covered by the warranty, we will refer you to a service person who will replace the lamp for you.

If your TV's warranty is expired, we will tell you where to purchase a lamp unit and you can install it yourself using the directions that follow.

The lamp has been designed to make installation as easy as possible, but if you don't follow the directions, there is a risk of burn injury or electric shock. If you don't feel comfortable replacing the lamp, call 1-866-SCENIUM to have a qualified technician install the new lamp unit (a fee will apply).

IMPORTANT PRECAUTIONS: Before you begin, make sure you read and understand all of the instructions. If you need any clarification, call 1-866-SCENIUM for help. You must follow all the instructions step by step. Thomson multimedia cannot be held responsible for failure to adhere to the safety measures described herein, the safety measures on the back panel of the TV, and any other reasonable safety practices and precautions.

Wait 30 Minutes Before You Replace the Lamp
The lamp unit's temperature can reach 200 degrees. **Unplug the TV and allow the lamp to cool thoroughly (for at least 30 minutes) before you remove the burnt-out lamp.**

• Don't remove the lamp access door or remove the inoperative lamp unit until you have a replacement lamp (this will reduce the risk that children or pets will come into contact with the hot lamp, and will keep foreign objects and dust out of the lamp unit.)

• Never allow children or pets to play with the lamp access door at any time.

• Use only a genuine RCA lamp replacement unit (part number 252115)

• There are no user serviceable parts within the lamp unit itself. Don't attempt to repair the lamp unit – attempting to do so may cause injury, and will void your warranty.

Write the date you replaced the lamp unit here for future reference: _____

What you'll need to get started:

___ A flashlight

___ A flat-head screwdriver

___ A lamp replacement unit (part number 252115)

___ The box that the lamp replacement unit came in.

1. Read the precautions listed above.

2. Make sure your hands are dry and clean before you begin replacing the lamp.

3. Unplug the TV's power cord from the wall outlet (or power strip). Unplug the power cord from the back of the TV.

4. Put the power cord far away from the TV. Taking this precaution will ensure that no one plugs in the TV if you walk away from it, or when you're waiting for the lamp unit to cool, or when you're installing the new lamp.

5. **Wait 30 minutes so the lamp can thoroughly cool. If you don't wait at least 30 minutes, you risk getting injured!**

6. After 30 minutes, go to the back of the TV set and find the lamp-unit access door (located in the lower right corner of the TV). **Read the precautions on the door (you may need a flashlight).**

    Note: Do not attempt to repair the lamp. Do not open the lamp assembly unit — leave the lamp in its casing.

Continues on next page...

Lamp assembly unit access door

*Step 8
Press in
on the tabs*

*Step 7
Loosen this screw*

*Step 8
Press in
on the tabs*
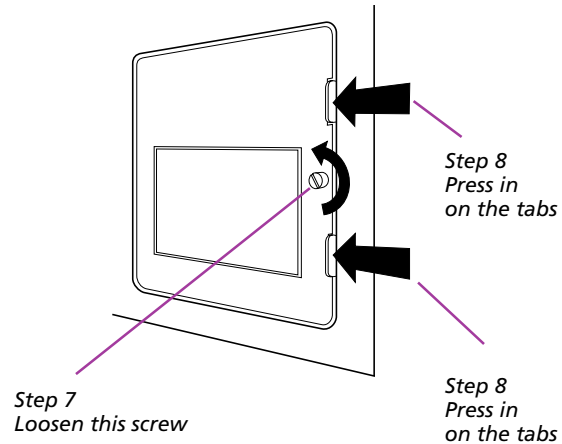
7. Loosen the screw on the door (don't remove the screw, just loosen it).

   Note: Don't use a coin to loosen the screws because it could fall into the TV.

8. Press the catch tabs on either side of the screw you just loosened (one tab is above the screw and one is below), and remove the entire lamp access door. Place the door to the side (don't put it on the floor or anywhere someone might step on it or accidentally break the tabs).
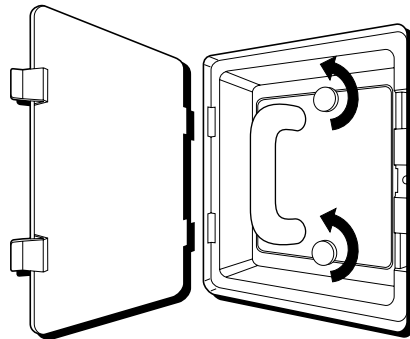
9. Loosen the two thumb screws on the lamp unit inside the TV (the screws stay with the unit so just loosen them, don't remove them).
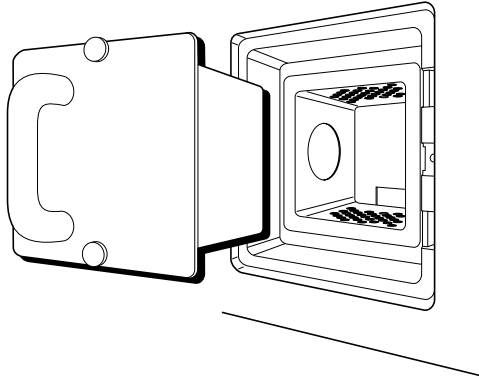
10. As you remove the lamp, pay attention to how the lamp fits so that you can use the proper orientation when you're installing the new lamp. To remove the lamp unit:

    • grasp the handle and pull straight back to remove the entire lamp assembly unit from the TV.

    • place the old unit out of the way where it won't get broken or dropped.

11. Remove the new lamp assembly unit from its packaging.

12. Make sure the lamp unit is oriented in the correct position, and gently slide it into the lamp access opening as far as it can go (it fits snugly).

13. Tighten the two screws on the new lamp unit.

14. Put the old lamp unit into the box in which the new lamp unit was packaged.

15. Replace the lamp access door (the TV won't turn on unless this door is in place and properly attached).

    a. Insert the catch tabs (also called latches) into the slots on the left side of the lamp access compartment first. Then put the rest of the door in place by rotating the door until it is fully closed and the latches are engaged.

    b. Tighten the screw.

16. Plug the power cord into the back of the TV first and then back into the wall outlet strip.

17. Turn on the TV.

18. After the TV warms up (up to 60 seconds), you should see a picture. If you don't see a picture, check the following:

    • Make sure TV is plugged in.
    • Make sure you've tuned the TV to a valid channel.
    • Try turning on the TV both ways: with the remote control, and then with the   power button on the front of the TV.
    • Make sure the lamp unit access door is properly and completely closed.
    • Make sure the screws are completely tightened.
    • Return to step 7 and make sure the lamp unit is fully seated in the housing.
    • If the TV still doesn't come on, you need to have the unit professionally serviced. See your warranty.

FCC Registration Information

Your LCOS High Definition Television is registered with the Federal Communications Commission and is in compliance with parts 15B and 68, FCC Rules and Regulations.

1. Notification to the Local Telephone Company.

On the back of this equipment is a label indicating among other information, the FCC Registration number and Ringer Equivalence Number (REN) for the equipment. You must, upon request, provide this information to your telephone company.

The REN is useful to determine the number of devices you may connect to your telephone line and still have all these devices ring when your telephone number is called. In most (but not all) areas, the sum of the RENs of all devices connected to one line should not exceed 5. To be certain of the number of devices you may connect to your line as determined by the REN, you should contact your local telephone company.

Note: This equipment may not be used on coin service provided by the telephone company. Party lines are subject to state tariffs, and therefore you may not be able to use your own telephone equipment if you are on a party line. Check with your local telephone company. Notice must be given to the telephone company upon permanent disconnection of your equipment from your line.

2. Rights of the Telephone Company.

Should your equipment cause trouble on your line which may harm the telephone network, the telephone company shall, where practicable, notify you that temporary discontinuance of service may be required. Where prior notice is not practicable and the circumstances warrant such action, the telephone company may temporarily discontinue service immediately. In case of such temporary discontinuance, the telephone company must: (1) promptly notify you of such temporary discontinuance (2) afford you the opportunity to correct the situation and (3) inform you of your right to bring a complaint to the Commission pursuant to procedures set forth in Subpart E of Part 68, FCC Rules and Regulations.

The telephone company may make changes in its communications facilities, equipment, operations of procedures where such action is required in the operation of its business and not inconsistent with FCC Rules and Regulations. If these changes are expected to affect the use or performance of your telephone equipment, the telephone company must give you adequate notice, in writing, to allow you to maintain uninterrupted service.

Glossary of Technical Terms

4:3 (also written 4 x 3): This is just an easier way of writing the aspect ratio so it appears in whole numbers instead of saying 1 x 1.33 (4 divided by 3 = 1.33).

To continue, 4 x 3 is the aspect ratio (width to the height) of standard definition televisions and NTSC pictures. 4:3 is the ratio of the width of the picture screen to the height — a 4:3 television with a width of 20 inches will have height of 15 inches.

16:9 (also written 16 x 9): This is just an easier way of writing the aspect ratio of High Definition Televisions so it appears in whole numbers instead of writing 1 x 1.77 (16 divided by 9 = 1.77) — the aspect ratio for HDTV. The aspect ratio is the ratio of the width to the height — a 16:9 television with a width of 48 inches will have a height of 27 inches.

AC-3 (also called Dolby Digital): Digital surround sound technology that delivers five full channels of audio, with a sixth subwoofer channel (that's the .1). HDTV signals include Dolby Digital 5.1 audio information.

Access card: The card provided by DIRECTV that enables you to subscribe to DIRECTV programming. This card has already been inserted into the slot that's on the back of your television.

Amplifier: A component used to increase the voltage of any power signal fed to it.

Analog (also called terrestrial): A type of signal that is broadcast over the airwaves. Technically, a signal that has many varying levels instead of being discrete or digital.

Aspect ratio: Ratio of the width of a picture screen to its height. See 4:3 and 16:9.

ATSC (Advanced Television Standards Committee): Industry group formed to define digital television (DTV) standards, such as HDTV and SDTV. See also ATSC Formats.

ATSC formats: A series of 18 digital television formats, approved by the FCC (Federal Communications Commission) for use by the television broadcast industry.

The 18 DTV formats defined by the ATSC include both HDTV and SDTV formats to be used by off-air broadcasters. Other formats have been defined by manufacturers and by satellite and cable broadcasters. Thomson digital television products are designed to accept and display a picture of appropriate quality from any of the 18 FCC-approved formats, and from all digital formats defined by DIRECTV.

A/V cable (audio/video cable): These cables are sometimes called RCA cables. Usually, they are color-coded (yellow is video, white is left/mono audio, and red is right audio). See composite video.

A/V receiver (audio/video receiver): The hub of an audio/video system. A component including Dolby Pro-Logic surround processing, 5-channel amplification, audio/video switching and input/output jacks, AM/FM tuner, and remote control. An A/V receiver is different from a stereo receiver, which omits all or most of the video-related features.

Azimuth: The horizontal angle which the radiating lobe of a satellite dish antenna makes in angular degrees, in a clockwise direction, from a north-south line in the northern hemisphere. In the southern hemisphere, the reference is the south-north line.

Coaxial cable: A cable that carries both video and audio signals. Used by cable companies and satellite companies.

Component video: Three individual signals used to create a color video image. Component video produces an improved color picture image compared to standard composite technology because component video separates the three channels of a color video signal (two chrominance and one luminance which minimizes interference between these signals).

Composite video: Video signal where the luminance (black and white) and chrominance (color) are combined. NTSC signals (analog) are composite signals.

CRT (cathode ray tube): Color picture tubes used in standard TV sets. Electron gun generates beams that are guided to the screen, illuminating small red, green and blue phosphor targets on the front surface. This produces colors and images on the screen.

DBS (Digital Broadcast System): A system in which signals from a satellite are received by home viewers directly, as opposed to cable systems that distribute the signal to head-ends and then distribute them to their customers. Your LCOS TV has an integrated digital broadcast receiver. To complete the system, you only need to install a DIRECTV satellite dish and order programming from DIRECTV.

Digital: Signal technology that is based on streams of 1s and 0s instead of analog waves. HDTV signals are digital.

DIRECTV: A digital satellite entertainment service in the U.S. offering access to more than 225 channels in digital-quality picture and sound. According to DIRECTV literature, it is the #1 digital satellite entertainment service in the U.S. with 9 million subscribers. Your LCOS TV is capable of receiving DIRECTV® programming, but you must correctly install a satellite dish and order programming from DIRECTV.

Discrete Codes: Versions of *toggle* codes that only perform one function. For instance, a "POWER" button on a remote would be a toggle, in that when it is used the current power state is reversed. If your device is on, it turns off. If it's off, it turns on. A "discrete" code would be a signal that ONLY turns the device on. If it is already on it remains so. These are most often used to ensure your home theatre components stay completely in sync for powering on and off and changing inputs.

Such specialized and otherwise hidden codes may also be available for direct access to other "toggled" or "rotating" functions such as television inputs, receiver soundfield settings and on-screen display modes.

Dolby Digital: Digital surround sound technology that delivers five full channels of audio, with a sixth subwoofer channel. HDTV signals include Dolby Digital sound. Formerly called AC-3.

DTV (Digital Television): A broadcast system in which the picture, sound and any auxiliary signals are all in digital form and the transmission techniques have been optimized for digital data. Specifically, DTV refers to the 1996 standards that describe the digital HDTV and SDTV systems.

DVD (Digital Versatile Disc or Digital Video Disc): Officially, DVD is not an abbreviation for anything because of trademark disputes. This high-capacity disc is primarily used for video playback. A single-sided, single-layer DVD can hold up to 4.7GB (gigabytes). The double-sided, double-layered DVDs hold more than 17GB of information.

HDTV (High Definition Television): A complete product/system that receives and decodes all ATSC Table 3 video formats; has active vertical scanning lines of 720p, 1080i, or higher; is capable of displaying a 16:9 image; and receives and reproduces, and/or outputs Dolby Digital audio.

IR (Infrared): The technology used for most remote controls that consists of information being sent using infrared radiation to a component that has an infrared sensor to receive the information.

Infrared: The technology used for remote controls that consists of information being sent using infrared radiation to a component that has an infrared sensor to receive the information.

LCD (Liquid Crystal Display): An alphanumeric display that uses liquid crystal sealed between two pieces of glass. The display is divided into hundreds or thousands of individual dots which are charged or not charged, reflecting or not reflecting external light to form characters, letters, or numbers.

LCOS (Liquid Crystal On Silicon): The high-resolution technology used in this television. LCOS technology is also called light management — utilizing three reflective light-valves (or imagers), a sophisticated prism and lensing system, light is transformed into a laser-like beam and imprinted with a high definition image that is ultimately magnified and displayed in a perfectly aligned widescreen format.

Learning: A feature of your remote control that enables it to receive and store the codes from a button on another remote control. This feature is useful if there is a button on one of your component's remote controls that isn't available on the remote packed with your LCOS HDTV.

LED (Light Emitting Diode): Technically, a two electrode semiconductor device capable of producing illumination. The power light on the front of your TV is an L.E.D. Also called an indicator.

Letterbox: Video image displayed with black bars above and below it on the video screen. Letterboxing is used most often to show wide-screen (16:9) programming on standard 4:3 television screens.

Macro: A shortcut you create with your remote control that gives you the ability to store a series of button presses on the remote control into one button on the remote. Go to chapter 3 for details.

MPEG (Motion Pictures Experts Group): Refers to the standards widely used for compression of digital video.

NTSC (National Television Standards Committee): Industry group that established the television standards used with analog television transmission. Also used to refer to the American television transmission standard for analog broadcast (i.e., an NTSC channel refers to a broadcast displayed on a television that meets the NTSC guidelines for analog transmission).

Off-air (also called terrestrial and Over-The-Air): Broadcasts transmitted over the airwaves using powerful transmitters, and received via antennas.

OTA (Over-The-Air): Broadcasts transmitted over the airwaves using powerful transmitters, and received via antennas. OTA broadcasting is regulated in the U.S. by the Federal Communications Commission (FCC).

Pixel (picture element): The picture you see on your TV is comprised of pixels. Specifically, a pixel is the smallest unit of area of a video screen image that can be turned on or off, or varied in intensity. The more pixels displayed on a screen of a given size, the sharper the picture. The number of pixels in an NTSC picture is about 200,000. DTV pictures contain a minimum of 300,000 pixels. SDTV pictures contain up to 1 million pixels, and HDTV is defined as pictures ranging from 1 million to 2 million pixels.

Progressive scan: The system of scanning an entire video picture with each scan as opposed to interlaced which scans every other line. Some Digital Television signals use progressive scanning, but most use interlaced as do NTSC signals.

Resolution: Resolution is measured in terms of the density of the picture elements (pixels) and is the total number of pixels (horizontal x vertical) used to display images on the screen. High-resolution images are composed of more dots per inch and appear smoother than low-resolution images. The higher the resolution, the better the display of details.

RF jacks: On this TV, ANTENNA A IN or ANTENNA B IN jacks. Coaxial cables are connected to RF jacks.

RGB Imagers (Red, Green, Blue imagers): Your LCOS HDTV's imagers are each dedicated to a specific color (red, green, or blue). White light shines on the imagers and the prism mixes the colors appropriately to create all of the colors you see on the screen.

RJ-11: Technical abbreviation for the type of phone jack found in most homes.

SAP (Second Audio Program): Used to broadcast bilingual broadcasting, or descriptive video services for the visually impaired. The TV must have an SAP decoder and the program must be broadcast in SAP in order to hear the SAP broadcast.

SDTV (Standard Definition Television): A subset of the ATSC's standard for Digital Television. SDTV refers to digital video signals that usually provide a picture quality similar to NTSC signals. The advantage of broadcasting SDTV instead of HDTV, is the ability to broadcast several SDTV programs in the spectrum space that is taken up by a single HDTV program.

SPDIF: a technical abbreviation for the optical cable you use to connect the DIGITAL AUDIO OUT jack on the TV to a Dolby Digital receiver that supports optical output.

S-video (separate video): When you connect an S-Video cable to the S-VIDEO jack on the TV and another component, the color (chrominance) part of the signal is separated from the black and white (luminance) portion of the signal creating optimum resolution. This is also called Y/C.

Terrestrial: Broadcasts transmitted over the airwaves using powerful transmitters, and received via antennas. Also called off-air and Over-The-Air (OTA).

V-Chip: The software used to translate ratings attached to broadcasts. A V-Chip system, called Parental Controls in RCA products, enables owners to block programs based on certain criteria. In order for parental controls to work, the broadcaster must attach the rating when the signal is sent to your TV and the consumer must set the ratings limits in the TV's menu system.

Video Input Channel: Technically, this isn't channel, but the term is used when explaining that you need to tune your TV to a specific channel in order to watch content (a videotape, DVD, etc.) that is being played by a component that is connected to the TV. For example, if your DVD Player is connected to the TV's INPUT1 jacks (VIDEO, AUDIO left and right), you won't be able to watch the movie on the disc that's playing in the DVD Player unless you tune the TV to the channel assigned to INPUT1 (in this TV it's labelled VID1 on the screen).

The Auto Tuning feature eliminates the need to tune manually to the correct channel. The INPUT button on the remote control tunes the TV to the input channels (keep pressing INPUT to scroll through all of the video input channels).

Widescreen (also called 16:9): Widescreen refers to the ability of a TV to reproduce the video in the exact format it was created. This is just an easier way of writing the aspect ratio of High Definition Televisions so it appears in whole numbers instead of writing 1 x 1.77 (16 divided by 9 = 1.77). The aspect ratio for HDTV. The aspect ratio is the ratio of the width to the height — a 16:9 television with a width of 48 inches will have height of 27 inches.

Y Pb Pr (also called COMPONENT INPUT): These are the jacks used to provide the ultimate video. Three separate connectors connect to these jacks and separate the video into three parts. Y is the technical abbreviation for luminance (also called luma), and P stands for chrominance (also called chrominance). Luminance is the black and white part of the video signal. Chrominance is the color part of the video signal. P is the technical abbreviation for chrominance. Pb and Pr are formulas that explain how the color part of the signal is separated into two parts.

RCA LCOS Display Limited Warranty

What your warranty covers:

• Defects in materials or workmanship.

For how long after your purchase:

• One year from date of purchase for labor.
• One year from date of purchase for parts.
• Two years from date of purchase for light engine and lamp assembly.

The warranty period for rental units begins with the first rental or 45 days from date of shipment to the rental firm, whichever comes first.

What we will do:

• Pay an Authorized RCA LCOS Service Center the labor charges to repair your unit.
• Pay an Authorized RCA LCOS Service Center for the new, or at our option, refurbished replacement parts, light engine, and lamp assembly required to repair your unit.

How you get service:

• Call 1-866-SCENIUM and have your unit's date of purchase and model/serial number ready.
• A representative will troubleshoot your problem over the phone.
• If the representative determines that you should receive service, they will provide you with the name(s) of the Authorized LCOS Display Service Center in your area.

• Contact the Service Center and arrange for home or pick up, repair, and return service, provided that your unit is located within the geographic territory covered by an Authorized RCA LCOS Service Center. If not, you must take your unit to the Service Center location at your own expense, or pay for the cost the Service Center may charge to transport your unit to and from your home.
• Proof of purchase in the form of a bill of sale or receipted invoice which is evidence that the product is within the warranty period must be presented to obtain warranty service. For rental firms, proof of first rental is also required.

What your warranty does not cover:

• Customer instruction. (Your Owner's Manual describes how to install, adjust, and operate your display. Any additional information should be obtained from your dealer.)
• Installation and related adjustments.
• Damage resulting from non-approved installation methods.
• Signal reception problems not caused by your LCOS display.
• Damage from misuse or neglect.
• Batteries.
• Customer replacement fuses.
• Labor to replace the light engine and lamp assembly after one year from the date of purchase.

- A television that has been modified or incorporated into other products or is used for institutional or other commercial purposes.
- A unit purchased or serviced outside the U.S.A.
- **Acts of nature, such as but not limited to lightning damage.**

Product Registration:

- Please complete and mail the Product Registration Card packed with your unit. It will make it easier to contact you should it ever be necessary. The return of the card is not required for warranty coverage.

Limitation of Warranty:

- THE WARRANTY STATED ABOVE IS THE ONLY WARRANTY APPLICABLE TO THIS PRODUCT. ALL OTHER WARRANTIES, EXPRESS OR IMPLED (INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE) ARE HEREBY DISCLAIMED. NO VERBAL OR WRITTEN INFORMATION GIVEN BY THOMSON MULTIMEDIA INC., ITS AGENTS OR EMPLOYEES SHALL CREATE A GUARANTY OR IN ANY WAY INCREASE THE SCOPE OF THIS WARRANTY.
- REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY OF THE CONSUMER. THOMSON MULTIMEDIA INC. SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THIS PRODUCT OR ARISING OUT OF ANY BREACH OF ANY EXPRESS OR IMPLIED WARRANTY ON THIS PRODUCT. THIS DISCLAIMER OF WARRANTIES AND LIMITED WARRANTY ARE GOVERNED BY THE LAWS OF THE STATE OF INDIANA. EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON THIS PRODUCT IS LIMITED TO THE APPLICABLE WARRANTY PERIOD SET FORTH ABOVE.

How State Law relates to warranty:

- Some states do not allow the exclusion nor limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you.
- This warranty gives you specific legal rights, and you also may have other rights that vary from state to state.

If you purchased your display unit outside the United States:

- This warranty does not apply. Contact your dealer for warranty information.

Service calls which do not involve defective materials or workmanship are not covered by this warranty. Costs of such service calls are the sole responsibility of the purchaser.

Specifications and Features

Sharp, high-resolution video performance

- True high-definition television with 1280 x 720P resolution.

- Wide-screen (16 x 9) cinema format.

- Progressive matrix display

  Frame doubles and upconverts incoming signals to 720P resolution.

  Eliminates common defect known as video "flicker."

- 2.76 million actively lit pixels.

LCOS optical system: "Lamp-to-Lens"

- 100W ultra high pressure lamp

  Provides intense white light source

- Integration optics

  Transforms light into rectangular, laser-like beam

- Prism System

  Separates white light into 3 primary colors (RGB — Red, Green, Blue)

  Directs separated light to corresponding light valve (imager) for video signal acquisition

  Recombines video imprinted light components into single synchronized video stream

Imagers

- 3-panel light valve system provides precise color reproduction (vs. 1 panel system)

- Reflective system

  – Provides up to 25% more light output than a transmissive (LCD) system

  – Each 1280 x 720P imager receives and transmits more than 900,000 pixels of information, totalling 2.76 million pixels of resolution

- 11-element lens system

  Color corrected

  Anti-reflective (AR) coating, optimizes light output

Display Screen

- Flat, ultra-precision pitch screen

  – High contrast, crisp picture

  – 0.15 mm pitch eliminates speckle problems that exist in larger pitch screens

  – 3x better resolution than typical projection screens

1st Surface Glass Mirrors

3D Y/C Frame Comb Filter

Horizontal viewing angle of virtually 180 degrees

Thin — only 18 inches deep

- vs. 23-25 inches for conventional PTVs (projection televisions) or VLS (very large screen) units

Lightweight – less than 100 pounds

- Compare to conventional PTVs or VLS units at 200-250 pounds

Convenient easy-to-use design

- No focus or convergence adjustments necessary

- Plug and play operation

Universal Learning Remote Control

- 2-line LCD (Liquid Crystal Display)

- Learning function: eliminates obsolescence

- Macro buttons: consolidate functionality

- Single button format control

  Switch from 16:9 to 4:3 aspect ratios with a single toggle

- Fully backlit

Built-in digital decoder receives and displays:

  18 ATSC formats (digital off-air signals)

  DIRECTV signals

  DIRECTV HDTV signals

Advanced NTSC twin-tuner PIP (Picture-In-Picture)

- SRS™ Focus audio technology

- 4-speaker system totalling 20 watts

V-chip parental control

Optional, matching base

Dimensions

- 47 $^{1/8}$ inches wide x 38 inches high x 18 inches deep

Accessory Information

The following accessories are available from most dealers and electronics supply stores in case you want to position your components farther apart or need additional cables.

Standard Audio/Video cable *with RCA-type phono plugs. VH83*
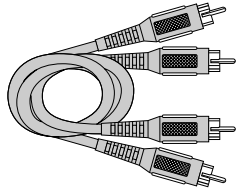
Monaural VCR Dubbing Audio/ Video Cable *is a double cable that lets you connect the video and audio jacks of two VHS VCRs to duplicate tapes. It can also be used to connect a VCR to your TV. The cable is color-coded and shielded. It has RCA-type phono plugs on each end. Gold-Tipped cable, VH83 (6-ft)*
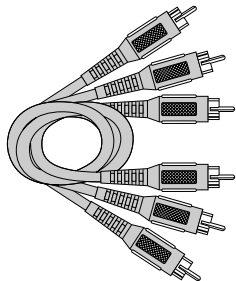
Stereo VCR Dubbing Audio/ Video Cable *is a triple cable that lets you connect the VIDEO and AUDIO jacks of stereo components. Gold-Tipped cable, VH84 (6-ft)*
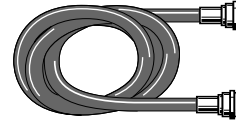
Screw-on Cable* *attaches to the round antenna connectors (called 75-ohm F-type) on the back of your VCR or TV. The ends screw onto the connectors for a secure connection. VH82 (6-ft), VH81 (3-ft)*
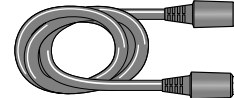
S-Video Cable *has multi-pin connectors on each end for connecting S-Video components to your TV. VH976 (6-ft), VH913 (12-ft)*
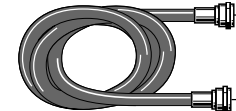
RG-6 Coaxial Burial Cable *with weatherproof "F" connectors. D905*
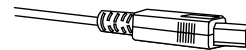
Optical/SPDIF cables *help you connect to a component with an Optical Audio In jack, such as a Dolby Digital decoder or receiver. DV3 (3-ft), DV6 (6-ft)*
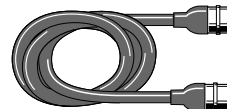
Push-on Cable* *attaches to the round antenna connectors (called 75-ohm F-type) on the back of your VCR or TV. The ends push on for a quick connection. VH89 (6-ft)*
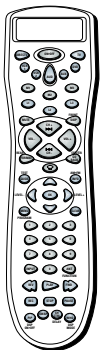
Remote Control   This is the remote control that came packed with your TV. Replacements or spares can be ordered as needed.

CRK820TAL1

2-way Signal Splitter, 4-way Signal Splitter*   helps you connect to other components.
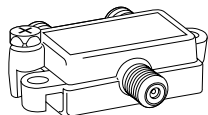
2-way Splitter (VH47)
4-way Splitter (VH49)

Amplified VHF/UHF/FM Antenna   allows you to easily switch from the antenna signal to cable or satellite easily without disconnecting antenna.

ANT200

Accessory List

Description	Part No.	Price	Qty	Total
Screw-on antenna cable* (3-ft)	VH81	$3.99		
Screw-on antenna cable* (6-ft)	VH82	$3.95		
Push-on antenna cable* (6-ft)	VH89	$5.95		
Weatherproof "F" Connector (2)	D905	$5.95		
Monaural VCR Dubbing Cable (6-ft)	VH83	$5.95		
Stereo VCR Dubbing Cable (6-ft)	VH84	$9.95		
S-Video Cable (6-ft)	VH976	$7.95		
S-Video Cable (12-ft)	VH913	$14.95		
2-way Signal Splitter*	VH47	$3.95		
4-way Signal Splitter*	VH49	$6.95		
Amplified Antenna	ANT200	$49.95		
Antenna Mixer	193984	$11.15		
Remote Control (CRK820TAL1)		$74.95		
Optical/SPDIF Cable (3-ft)	DV3	$15.95		
Optical/SPDIF Cable (6-ft)	DV6	$19.95		
Audio•Video Adapter	228449	$4.45		
Diplexer	D920	$19.95		

Index

Symbols

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